

Consumers' Research General BULLETIN

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June, 1935

No. 8

Why Not a Legal Clinic? by William S. Weiss

Life Ends at 11.45—Pitkin to the Rescue
of Advertising

A Test of Inner Tubes

A Report on Non-Leaded Gasolines for 1935

Tests of Lawn Mowers

Needed: Standardized Sizes for Cotton
Wash Dresses

C R Tests Thirteen Models of Women's Cotton Wash Dresses

Not Confidential

25c a copy

Consumers' Research BULLETIN

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This Issue Not Confidential

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Responsibility for all specific statements of fact or opinion at any time made by Consumers' Research lies wholly with the technical director and staff of the organization. Please send notice of any change of address at least two weeks before it is to take effect, accompanying your notice with statement of your previous address, preferably a copy of a CR address label. Duplicate copies cannot be sent to replace those undelivered through subscriber's failure to send advance notice, except at the regular price for orders of such material as back issues. N. B.—The proper reading and interpretation of the material in this Bulletin presupposes the subscriber's familiarity with the contents of the *Introduction to Consumers' Research*.

Off the Editor's Chest

RUMORS THAT CR is a racket; that for sums varying from \$50 to \$100,000 a product can be listed as recommended; even the assertion that CR is run by ex-advertising-men, have been circulated by advertising men, manufacturers, salesmen of vacuum cleaners, refrigerators, and other goods listed as *Not Recommended*. When these rumors are traced back to their source, it always turns out that they come from a "friend" who can't be named, for fear of getting him into trouble, or from an "irresponsible" salesman whose statements were quite "unauthorized" by his company.

As CR has grown in influence, these rumors have become more numerous. It is quite understandable that those who are not or who never have been subscribers to Consumers' Research readily believe these rumors. The customary ethics and tactics of business and advertising over the past ten years have naturally justified a cynical and suspicious attitude on the part of all thinking people. For CR subscribers, however, the yearly financial statement sworn to by a well-qualified public accountant, which appears in the *Introduction* to CR, is the most convincing proof of our honesty and unpurchasability. As one business man put it in a letter to another, "they do not seem to be willing to listen to *any reasonable proposition*." [Italics ours—CR]

A new tactic, however, has been evolved by the business men, which runs something like this. From our total income of \$134,476.10 (p. 5, *Introduction*, sent free on request) deduct total salaries and net income which leaves \$53,114.89 for tests, materials, and bulletin costs. By deducting from this figure the handbook and bulletin costs given (exclusive of salaries) you get less than \$20,000 to apply to tests. "Now," said one business man, "you can't possibly cover all of the ground that CR does from automobiles to food products and from electrical appliances to face creams on any reasonable figure that you can deduce from their financial statement." Well, the answer is simply that CR does, and competently. The *reasons* that we are able to supply so much technical information for so little expenditure are likewise set down in the *Introduction* (Section 18). Many of our consultants, who number well over 400, are so glad to have the opportunity to do an honest piece of technical or scientific work which will not have to be suppressed or doctored to suit the dean or the trustees, or the principal stockholder, that they have rendered consumers valuable services without charge, or have set a merely nominal charge to cover apparatus and laboratory expenses. Occasionally a technician sends us free of charge a report on tests of commodities for which any business firm would pay several thousands of dollars.

Science has been prostituted in the service of advertising and business, but not all scientists and technicians can be bought. To this incorruptible, able, and social-minded group CR owes a large part of its success; and its subscribers likewise owe them a debt of gratitude for their services. M. C. P.

CR's Bulletins do not appear in July and August.

Needed: Standardized Sizes for Cotton Wash Dresses

CR Tests Thirteen Models of Women's Cotton Wash Dresses

IT IS THE FASHION of the business men who are strenuously opposing standards for consumers' goods to paint the terrifying (to them) picture of women all dressed alike in standardized clothes. They shed crocodile tears over the fact that women would lose all the intangible joys inherent in buying a dress for the sole reason that it is attractive and becoming. As is nearly always the case when men of trade presume to speak for the feminine half of the population, the gentlemen show a benighted ignorance of the problems which face a woman who sets out to buy herself three or four cotton wash dresses for the summer season. That little model which looks so attractive on the hanger in size 16 is too tight across the hips, and she knows that as soon as it is washed it will be tighter. Size 18 is too big across the shoulders and she dares not take the long chance of its shrinking to just the proper size. After considerable pulling on and off of cotton dresses, disarrangement of wave, and much running back and forth of the sales girl to bring in a fresh supply, the shopper manages to find one dress which



Queen Make, Style 970



Hubrite Informal Frock

is fairly attractive, which fits, and which she hopes will not shrink too much after it is washed.

A clever congressman who wishes to enlist the support of the women of his district should campaign on the issue of accurate sizes and correct labeling for women's dresses. Once such standardization were achieved, one could retire to the dressing room with an armful of size 16 dresses, secure in the knowledge that it would not be necessary to send the sales girl out for an 18 in one style or a 20 in others. The congressman would earn the undying gratitude of women, not to mention some excellent publicity and valuable votes which he would undoubtedly secure by such a simple but much-needed reform.

CR recently purchased in size 16 thirteen women's cotton wash dresses at prices varying from \$1.98 to \$3.98. A girl on CR's office staff who customarily wore size 16 clothes tried on each one. One or two of the models fitted so tightly at the outset that obviously no one would voluntarily buy them, since after washing they would be entirely too small. The

dresses were washed once under conditions of home laundering and the shrinkage measured. The material was subjected to a fading test and each dress appraised for workmanship. Although cotton goods are customarily tested for tensile strength, such a test was not undertaken; it was the view that the main difficulties with cotton dresses are that they shrink in washing so that after a certain period (often after first washing) they can no longer be worn, and that the colors fade so that the dress is discarded because it is unattractive. If we are in error in analyzing the experiences and desires of women consumers on these points, we shall be glad to have further suggestions for future tests. All dresses rated well with respect to color fastness, although the fading test was of short duration because of the speed necessary in the short time between the first appearance of the dresses on the market and the time the report had to be completed for the bulletin in order to be of any value this spring.

Other points considered, in addition to color fastness and minimum amount of shrinking, were well-finished seams, good thread of a color and quality that will not run and ruin the dress, and an adequate hem basted in by hand so that it may be let down easily after washing.

A. Recommended

Hubrite Informal Frock (Hubrite Informal Frocks, Inc., 100-112 Shawmut Ave., Boston) \$3.98, purchased directly from the manufacturer. Red, rose, black, gray, and white plaid print, sanforized. Seams wide and exceedingly well finished. Hem $2\frac{1}{4}$ in., machine-basted. Side opening at the waistline closed with snap fasteners. Initial fit good. Dress fastened at the neck by a lacing of black grosgrain ribbon which, of course, must be removed each time it is washed. Belt of grosgrain ribbon to match. Shrinkage was negligible and the dress fitted well after washing. Color fastness fairly good.

Queen Make, Style 970 (I. Ginsberg & Bro., 1350 Broadway, New York City) \$3, purchased at B. Altman & Co., New York City. One-piece orange and brown striped on white background, seersucker, with brown corded wool belt and matching lacings at the neckline. Initial fit was good. The seams were fairly well finished and of good width. Hem width $2\frac{3}{4}$ in., machine-basted. Machine-made button holes, however, at the neck were not well made and showed signs of fraying after one washing. Side opening at the waistline closed with snap fasteners. Color fastness good and there was little shrinkage.

B. Intermediate

Quaker Lady, Style 2419. \$2.95, purchased through *Good Housekeeping* Shopping Service, from John Wanamaker, New York City. Blue and white checked seersucker. Initial fit good. Width of seams fair but sewed by chain stitch inadequately fastened. Width of hem $1\frac{3}{4}$ in., machine-basted. Side opening closed with snap fasteners. Wooden buttons, after one washing showed signs of losing their finish. Pleats skimpy. Color fastness good. Shrinkage slight.

Nelly Don, Model 534 (Donnelly Garment Co., Kansas City, Mo.) \$3.95, purchased from Wm. Laubach & Sons, Easton, Pa. Sleeveless, multi-colored striped seersucker gathered on "lastex" at the waist. Initial fit poor. Skirt of dress extremely skimpy, overlapping slits of $6\frac{1}{2}$ in. on each side seam to give full-

ness. Would fit only a very skinny woman. Seams were wide enough and fairly well finished except for the facing of the armhole which was not fastened down and frayed after one washing. Hem width $2\frac{1}{2}$ in., securely sewed in. Color fastness excellent. Shrinkage moderate. The "lastex" in the waist will wear out in time and there is no practical method of replacing it.

L'Aiglon, Model 309C (Biberman Bros., Philadelphia) \$3.98, purchased from Wm. Laubach & Sons. Two-piece blue and white checked gingham, Peter Pan collar. Initial fit poor. Seams good width, well finished. Skirt entirely too skimpy to fit well even before washing. Width of hem 3 in., machine-basted. Navy blue belt of flimsy cotton material. Blouse had side opening closed with snap fasteners. Color fastness excellent. Shrinkage very slight.

Nelly Don, Model 479 (Donnelly Garment Co.) \$2.95, purchased from Wm. Laubach & Sons. Green, tan, blue, and white checked gingham with white piqué collar. Initial fit good. Seams were wide and well finished. Dress had no side opening at the waistline to provide ease of putting dress on. Hem 2 in., securely sewed in. Shrinkage considerable. Color fastness good.

Nelly Don, Model 429 (Donnelly Garment Co.) \$2.95, purchased from Wm. Laubach & Sons. Red and white striped piqué with sunback covered by large white detachable piqué collar buttoning at the belt in the back which entirely covered the sunback effect. Cut on the bias with seams at center back and front. Initial fit good. Seams were irregular; some were ample, others extremely narrow. Width of hem 2 in., securely sewed in. Side opening closed with snap fastener and hook. Shrinkage moderate. Color fastness fairly good. One excellent feature of this dress was shoulder strap holders closed by snaps to prevent lingerie straps from slipping. This detail is usually found on well-made dresses.

C. Not Recommended

Fifth Avenue Mode, Style 9006 (Fifth Avenue Modes, Inc., 74 Fifth Ave., New York City) \$2.95, purchased through *Good Housekeeping* Shopping Service from Fifth Avenue Modes, Inc. One-piece multi-colored striped waffle piqué with two-piece effect. Initial fit was somewhat loose and after washing, dress stretched instead of shrinking. Seams extremely narrow. Poor stitching, which gave way under right arm after only one washing and two wearings. Width of hem 2 in., very poor machine-basting. Side opening closed with snap fasteners. Color fastness fairly good.

Montgomery Ward, Cat. No. 914C4076 (Montgomery Ward & Co., Chicago) \$1.98. Navy blue eyelet dress. Initial fit was only fair. Seams narrow. No hem at all, just machine-finished edge. No side opening at all. Stitching was sloppy and uneven. Picot edge collar already frayed after one washing. Shrinkage one of the two worst of the entire lot. Color fastness good.

Montgomery Ward, Cat. No. 914C4084 (Montgomery Ward & Co.) \$1.98. Red, blue, and white checked tissue gingham dress with white dots. Seams wide and well finished. Width of hem 2 in., securely machine-basted. Initial fit good. Self-material pleated ruffles trimming, not suitable for wash dress since pleats come out with first washing. Bone buckle of belt cracked after one washing. Color fastness good. Considerable shrinkage.

L'Aiglon, Model 166 (Biberman Bros.) \$1.98, purchased from Wm. Laubach & Sons. Two-piece Roman striped, dark and light blue, maize, green, and white. Initial fit poor. Skirt extremely skimpy.

C. Not Recommended (Contd.)

Seams fairly well finished. Outside finishing done with navy blue thread of poor quality which ran when dress was washed. Hem 2 in., machine-basted. Facing up front of skirt and blouse not fastened down. Shrinkage moderate. Color fastness fairly good.

Sears, Roebuck, Cat. No. 31H8797 (Sears, Roebuck & Co., Philadelphia) \$2.48. Two-piece play suit of orange and brown fine stripes. Initial fit fair. Seams narrow, irregular, frayed after one washing. Stitching breaking in places. Play suit poorly designed with inadequate opening so that in getting into it seam at the waist split after it was put on twice. Hem of skirt $1\frac{3}{4}$ in., machine-basted. Skirt, which buttons all the way down the front, was quite loose at the waist. Shrinkage was moderate. Color fastness fairly good.

Sears, Roebuck, Cat. No. 31H8941 (Sears, Roebuck & Co.) \$1.95. Navy blue and gold checked gingham with simulated blue and gold smocking. Initial fit was fair. Seams were narrow and not well finished. Blue piqué belt did not match blue of the dress. Outside stitching done with navy blue thread of poor quality, which ran. Width of hem $2\frac{1}{2}$ in., machine-basted. Shrinkage one of the two worst of the lot. Color fastness good.

Coconut Oil Soap— A Skin Irritant

WE HAVE HAD numerous reports from subscribers complaining of the troubles they have had in using several of the widely sold soaps containing coconut oil. Attempts have been made at various times to obtain authentic information relative to the irritating effect of coconut oil soaps. Little has come of our efforts in the past, primarily because what scant information there is on the subject is known only to the technologists in the employ of the soap industry and therefore not available or likely to become available to consumers. Our investigation of this subject supports other evidence in our files that chemists know little about the toxic and adverse physiological effects of the poisonous products which they constantly handle. One could almost believe that the education of chemists had been deliberately planned to keep them ignorant of the dangers of many chemical substances; and the industrialists who hire them care little about such problems so long as money can be made without stopping to inquire about the physical hazards involved in the use of the particular product.

It should be noted in connection with soap analyses that it is very difficult to identify in the finished soap the oils and fats used in manufacture, and while many companies claim for their product a coconut oil content of 25 percent or less, it is very difficult to check accurately upon this because of the similarity in certain measured characteristics of coconut oil and several other oils used in the manufacture of soap. CR plans in any future analysis of soap to include an estimation of the coconut oil content, and will report the findings to consumers,

so that those who have trouble with such soaps may avoid their use, without the necessity of a personally conducted experiment using one's own skin as a test medium. The following, which comes from a toxicologist of high repute, is the most authoritative information we have received to date on the irritating effect of coconut oil. We pass it on to our subscribers at this time for what it is worth and ask that those who have had adverse experiences in the use of coconut oil soaps and are qualified to discuss the matter, will write us in detail concerning them, giving us particularly the brand name of the soap which caused the trouble.

"Copra, the residue of coconut pulp after the expression of coconut oil, long has been known to constitute a definite skin irritant. The resulting skin affection is popularly and technically termed 'Copra itch.' This irritant is believed to represent rancidity products of the small amount of oil left in the copra.

"There is an increasing conviction that coconut oil is more irritating or may become more readily irritating than most bland vegetable oils. . . . Of all the fats, coconut oil has the highest saponification number, 257.3 to 268.4, hence strong alkalies are required to saponify it.

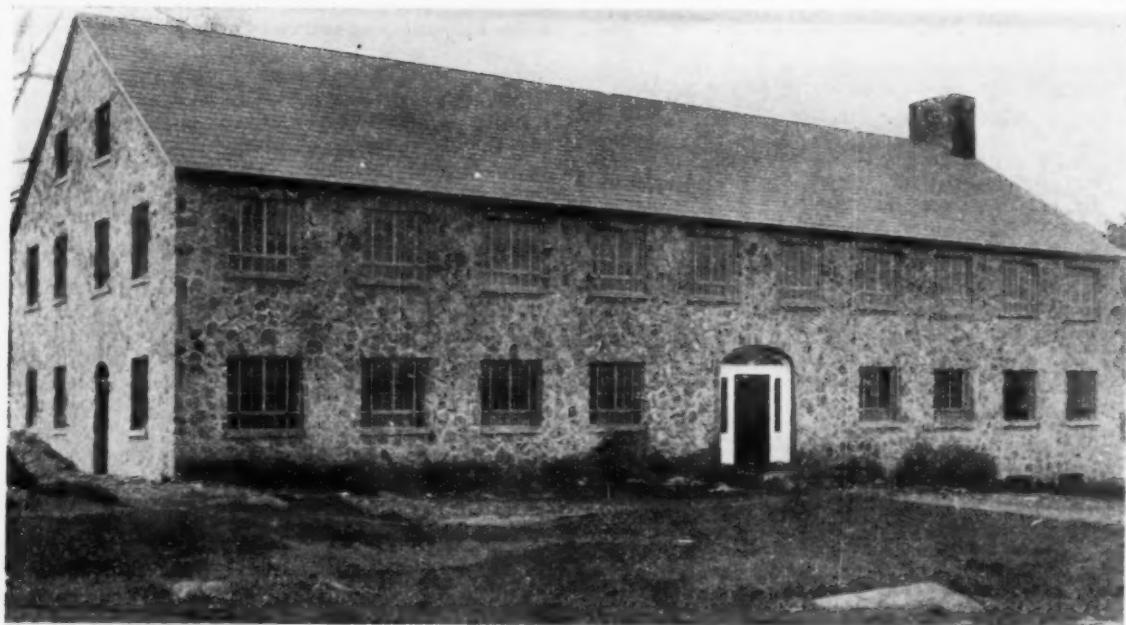
"It does not appear that coconut oil soaps usually contain any excess of free alkalies but even so this type of soap may readily produce a burning, itching sensation of the skin, at times accompanied by redness and a feeling of increased heat in the skin. At this time this is believed to be an intrinsic property of the coconut oil itself or its constituents. A knowledge of prospective irritation prompts some manufacturers to keep the percentage of coconut oil low (usually lower than 25 percent) through admixtures with other oils when the total percentage of oil required is in excess of 25 percent. Coconut oil shampoos appear to be the source of more irritation than soaps. This possibly is due to the less complete saponification of the liquid soaps.

"As a casual test 40 persons, including both men and women, were interrogated as to their knowledge of and attitude toward coconut oil products such as soaps or shampooing liquids. While the greater number queried were not in position to furnish any information, about 10 in number definitely stated that they avoided coconut oil products because of regular discomfort, dermatitis, etcetera. Medical literature includes cases of skin lesions [skin injury or disease] occurring both among workers in coconut oil and users of such products. The resulting condition chiefly is referred to as an inflammation of the hands, forearms, face, and scalp. Some persons become sensitized [allergically] to the action of coconut oil or to coconut oil soap. In various publications this dermatitis is attributed to any or all of the following: the two alkalies used in soap making, or contained in soap, or to coconut oil *per se* or its constituents of impurities.

" . . . Coconut oil and its products are believed to represent the source of a fair amount of inflammatory reaction, culminating in an occasional case of frank dermatitis commonly characterized as eczema."

Consumers' Research Bulletin
CR's New Plant

June 1935



The new stone and concrete office building.

AS THIS BULLETIN goes to press, on May 18, CR is moving to new quarters in the country about a mile and a half from its recent quarters in Washington, New Jersey, where it occupied an old piano factory. The move was partly necessitated by our need for larger quarters, especially for laboratory work, and partly by the fact that we were able to make an advantageous purchase.

For the sum of \$2,800, CR has bought some eight acres of land and a number of buildings, including a large stone foundry, a seven-room brick dwelling, and two or three frame buildings. The foundry has been made into a laboratory for physicists, chemists, and engineers doing testing of materials and appliances. The brick house is to be used as a home laboratory, a dining room to serve noon lunches to members of the staff at cost, and a staff clubroom, library, and reading room. In this building it will be possible to conduct practical tests of household appliances and kitchen equipment under conditions of actual use over a considerable period, which will supplement the engineering tests and examinations, and help us to give proper weight to those factors of convenience,



*The brook past the laboratory.
Barn on left has been removed.*

adaptability, and the like, which are of much importance in evaluating appliances and equipment.

In addition, a new stone office building has been erected for a cost somewhat less than CR's income for one month, and which will provide some 9,000 square feet of space when it is entirely finished. One wing, which will make the building into a T shape, will be added later after the main section has been occupied.

The brick house and the foundry building were in fairly good condition and required only comparatively minor repairs. The office building has been made of field stone and concrete by the Flagg method whereby forms are built for the walls, stones placed against the front of the form, and concrete poured behind the stone. No stone had to be purchased for the work; all came from the excavation and the surrounding ground. The roof is

slate supported on steel trusses; the windows are set in steel frames especially constructed to permit adequate ventilation without the bad winter drafts which characterize many casement windows. The floors are of concrete supported on steel columns and beams. The walls are finished on the interior



The Brick House which includes staff lunch and club rooms.

with a coating of cement. Since very little wood was used in the construction of the building, it is relatively fireproof. In this respect we expect to effect considerable reduction of fire risk on the editorial and technical files which had to be very heavily insured in our former building, constructed entirely of wood. A number of young fruit trees have been set out throughout the grounds in order to provide at least a partial answer to those agriculturists and agricultural experts who insist that it is impossible to raise edible fruit without the use of arsenic, lead, and other poisonous insect sprays.

One aspect of CR's new plant which has impressed many people is the fact that it has been

designed and built by the staff technicians and skilled local workmen, and has been paid for by an exceedingly modest sum out of the regular income from CR subscribers—without mortgage, without being financed by bankers or anyone else. Not only does it lack the trappings of the average building job, but it is impressive for its simplicity, strength, and obvious adequacy to its purpose and the safety of CR's files and staff. The original purchase price for the land and three sound and useful buildings was only slightly more than CR's annual rent in New York City for a rather poorly lighted loft building of some 5,000 square feet of floor space.

Our address is still Washington, N. J.

The laboratory, formerly an old foundry.



Not Confidential—Consumers' Research

Tests of Lawn Mowers

IT SEEMS PRACTICALLY impossible to buy most consumers' goods without gadgets. There are some commodities, however, particularly those whose fundamental design was pretty well standardized long before the days of modern advertising and high-pressure salesmanship, in which gadgets are rather limited or are applied only to over-priced models for the customers who can be counted on to bite if they're offered a few fine-sounding extras for bait at sufficient increase in price.

Lawn mowers seem to fall into this category. You can buy good sturdy old-fashioned ones, which cut the grass neatly and easily, at reasonable prices. But if you *must* pay more for "the best," you can get 'em equipped with "Hyatt Roller Bearings—the kind used in the most expensive automobiles and the biggest transport airplanes." It just happens, as the advertiser does not tell you, that on lawn mowers, roller bearings offer advantages over ball bearings which, if they exist at all, are safely adjudged to be absolutely negligible. For the purpose of selecting bearings, hand-power lawn mowers, as any engineer can tell you, resemble automobiles and transport airplanes a great deal less than they do farm wagons or garden cultivators. Now, thanks to the influence of the advertising experts of the automobile industry, you can even have a lawn mower equipped with a "One Shot Oiler" which enables you to oil all the bearings at a single push with the foot—truly the apex of lawn mower achievement!

Consumers interested in getting their money's worth in lawn mowers, however, have quite a few indications to go by. Durability, ease of operation, and ability to cut the grass evenly without leaving it ragged in appearance are judged to be the chief values on the basis of which lawn mowers should be purchased. Durability, of course, cannot be determined without operation over a fairly long time; nevertheless, one can form some judgment by comparison of the machines, noticing general ruggedness of construction and various methods of cheapening or points of evidently poor or inadequate or skimped design. Notice the handle: how permanently and securely the part you take hold of is fastened to the shaft, and that, in turn, to the machine. The cutting blades are fastened to their shaft by "spiders" (sets of spokes, usually curved): how many "spiders" have the several machines you are investigating? How well are the blades riveted to them? Are all the "spiders" fastened to the shaft, or just the two at the ends? Have a look at the gear wheels—you have to take the drive wheels off to see them, of course. Are the faces of the gear wheels three-fourths of an inch wide, or only half an inch? The wider they are, the longer you can expect them to wear. Is the base knife—the bar at the bottom, against which the revolving blades cut the grass—so thin that it may be bent if you strike a stone in the lawn?

Examination of such points as these and comparison of different brands on the basis of them will provide at least indications of quality of workman-

ship and of the interest the manufacturer has taken in building a machine of the quality which can be expected to make it long-lived. It's surprising on what trifling things the manufacturer will choose to do his skimping, and how little he may save on any given point which may have shortened the useful life of his machine by half or more. Other points to observe will occur to you as you look over the mowers. Better yet, before you start shopping, examine your machine or your neighbor's, preferably an old one which has seen hard use; take it apart, and find out first hand the principal points of wear and deterioration.

Ease of operation of a mower can be determined only by actually trying it out—*on the lawn*. It depends, of course, partly on its width—on how wide a swath it mows; but also on its construction—use of good ball bearings, for instance; and especially on the sharpness of the blades. Consider in selecting a mower who is going to use it, and on what type of lawn. A strong man won't care much how hard it pushes, perhaps, and will want one as wide as possible within reason, not minding the extra work it takes to push a wide machine. A boy, on the other hand, may be able to mow a lawn faster and better with a narrow, easy running mower—14-inch, for instance—in spite of the extra steps it takes. Also, on a small lawn, one largely broken up by flower beds, etc., or one with steep slopes, a narrow, light machine may be preferable, even for an adult user.

How evenly the mower will cut depends on such things as the "gear ratio" and the number of blades. In the last analysis, however, it is largely a matter of how far the mower moves ahead at each stroke of the blades, a thing which can be determined in the store as follows: place the machine beside a yardstick, run it ahead slowly, and notice how far it moves forward from the point where one of the cutting blades first touches the base knife to the point where the next blade first touches the base knife. A more accurate measurement can be made by noting the distance the mower moves forward during ten such successive contacts of the blades with the knife, and dividing this distance by ten. This "amount of grass cut," or, better, distance traveled, per blade-stroke, should hardly be more than an inch and a half for smooth mowing on ordinary lawns, on which the grass is left an inch high by the mower. If the grass is thick, or if it is more closely cut, the distance cut per blade-stroke may need to be as little as an inch or less if the lawn is to be left smooth and even, and the mower is to run easily.

In buying a mower, do not be impressed by claims that it is "self-sharpening." All lawn mowers of the ordinary type are self-sharpening to some extent—it is inherent in their construction—but all of them need occasional resharpening, the frequency depending on the quality of the steel in the blades, method of tempering, etc. Neither should you be overwhelmed by claims that a mower is "ball bearing." All but one of the ten medium-priced mowers

tested for CR had ball (or roller) bearings supporting the shaft that carries the revolving blades; only the *Eclipse*, however, was judged to have sufficient balls in the bearing to make it properly long-lived. (Lawn mowers are one of the outlets for manufacturers of third- and fourth-rate ball bearings.) Had the manufacturers of the other mowers been interested in providing adequate bearings rather than the right to claim "ball bearings!" in their ads, they could have done so at very slight extra cost.

Whether you buy from a mail order house or a local merchant, ask for a written list of repair parts and prices. (Three of the ten mowers tested were accompanied by such lists, and two others had lists of parts without prices.) It is well to obtain a written statement from the seller guaranteeing the availability of repair parts at stated prices for five or ten years from time of purchase. Above all, insist on such a guaranty on mowers sold under the name of a local jobber (or of a mail order house) and not bearing the manufacturer's name and address. Such jobbers frequently change manufacturers, with the result that they become unable to supply parts for mowers previously sold. And, worse yet, they don't usually care very much, feeling, perhaps, that you ought to be in the market for a new mower anyway by that time.

Care of a lawn mower. Main items of care of a mower are oiling, resharpening of the blades, and occasional cleaning out of the grass and dirt accumulated in the gears and other parts. The bearings of the cutting blades' shaft and the drive wheels should be oiled each time the mower is used. If you have trouble with grass getting caught in the gears and becoming imbedded in them, it may be just as well not to oil the gears, since oiling will do little good, and the collecting and jamming of the fibers, which it favors, may actually make the mower run harder. In some mowers, the bearings of the shaft carrying the revolving blades are not oiled, but packed with grease once a season. Unless the cutting blades are kept sharp, they will mow raggedly and the mower will run hard. While the best sharpening is probably done by a skilled sharpener who has a machine for the purpose, it can be done at home by a person of some mechanical ability.¹

Ratings. The ratings which follow are based on accelerated wear-tests made for CR, which were estimated to be equivalent to six years of use on the average lawn. They take account of ease and

¹ To sharpen the blades at home, first remove the drive wheels, thus exposing the two pinion gears. (These gears, one on each end of the cutting-reel shaft, are turned by the drive wheels and, when the machine is pushed forward, catch on pawls on the cutting-reel shaft so that it is made to rotate. When the machine is backed up, the internal ratchet teeth of these gears slide over the pawls so that the cutting-reel is not turned.) Remove these gears and interchange them, putting the left-hand one back on the right-hand end of the shaft and vice versa, at the same time turning the pawls around if necessary in your mower, so that when you have replaced the drive wheels the cutting-reel turns when the machine is backed up but not when it is run forward. Now adjust the base knife until there is considerable pressure between it and the revolving blades, spread along it a layer of automobile

satisfactoriness of operation, and relative length of life as estimated from ruggedness of construction and the relative wear of the parts. Prices given are those paid for 16-inch machines, the size tested.

A. Recommended

Legion (Reading Hardware Co., Reading, Pa.) \$8.50. Produced smoothest cut of any machine tested. Tests indicated probability of long life. ²

Pennsylvania Quality Clear Cut (Pennsylvania Lawn Mower Works, Primos, Pa.) \$9.95. Retained sharpness longest of any machine tested. Tests indicated probability of long life. ²

Vassar 5-Blade (Coldwell Lawn Mower Works, Newburgh, N. Y.) \$9.60. Rated second among the machines tested in ability to retain sharpness. Tests indicated probability of long life. ²

B. Intermediate

Defiance, Model No. 642 (Sears, Roebuck & Co., Philadelphia) \$5.85 plus freight. Comparative value good considering price. Tests indicated probability of long life. Model No. 8212, at \$6.35, in this spring's catalog, appears to be the same as the model tested. ¹

Lakeside, Model No. 5555 (Montgomery Ward & Co., Baltimore, Md.) \$5.75 (\$7.25 in this spring's catalog) plus freight. Judged not so well built as *Defiance*. ¹

Craftsman, Model No. 626 (Sears, Roebuck & Co.) \$9.95 plus freight. Had "One Shot Oiler." Not enough better than *Defiance* to justify \$4 difference in price. Model No. 8222, in this spring's catalog, appears to be the same as the model tested. ²

Eclipse, Model M (Eclipse Machine Co., Prophets-town, Ill.) \$13.50. Had special device to facilitate sharpening at home. Only machine tested whose cutting-reel-shaft ball bearings were judged really adequate. Performance good on ordinary lawns but it is judged that the \$15.75 model, which has five blades instead of four, would function more satisfactorily on short, thick grass. Tests indicated probability of long life. ³

C. Not Recommended

Herschel, Model No. 120 (R. Herschel Mfg. Co., Peoria, Ill.) \$7. Was somewhat hard running; blades dulled rather quickly. Judged likely to be shorter-lived than most mowers tested.

La Salle (American Lawn Mower Co., Muncie, Ind.) \$5.85. Was somewhat hard running; blades dulled rather quickly. Judged to be rather poorly built.

Union 16-Inch (American Lawn Mower Co.) \$5. Hard running; uneven cut on most types of lawn; cutting blades dulled quickly. Tests indicated probability of short life. This mower made a generally poor showing.

valve-grinding compound, turn the mower upside down, and push it. This should cause the cutting blades to revolve backwards and be ground against the base knife; grind them down until the cutting edges meet uniformly. Then wipe off all the valve-grinding compound (taking care that none gets into gears and bearings!) and readjust the base knife sufficiently close to the cutting blades so that they will just shear a sheet of thin paper laid across it when they are rotated forward by hand. When the job is correctly done, the sheet of paper can be sheared in any part of the length of the base knife and with any part of any one of the revolving blades.

Take care in following the various steps of this procedure to avoid being cut by unexpected movements of the revolving blades.

Why Not a Legal Clinic?

WHAT is a man to do in any large city who feels that he would like legal advice and can't afford to pay for it? Lawyers must live and pay rent, clerk hire, stenographers' wages, and other overhead, all of which necessitates their charging their clients fees adequate to cover this overhead and leave them enough to live on. But there are numerous people in the city of New York, for example, who need legal advice and yet cannot afford to pay for it on the scale charged by the average attorney. What is a man in this situation to do? He does not want charity. He does not need advice on any very complicated question, but he does need to be guided. He wants a lawyer to whom he can present his problems, with whom he can talk over his difficulties, and by whom he can be advised as to how he should proceed in what seems to him to be a complex situation. What is really needed is a small-town or country lawyer in the big city.

In large cities today the situation in the legal profession has developed to the point where there are many highly skilled practitioners, but their services are not yet generally available to people of moderate means. The time seems ripe for the establishment of a kind of legal clinic to correspond roughly to the medical clinic. The proprietor of a small business, a salaried employe, or an artisan working for himself, all need legal advice. If such a man buys an automobile secondhand, or has occasion to make a lease, or wants to take out insurance, or to make a will, he requires advice, frequently legal, sometimes only general. Often he does not know that he requires it, but, whether he knows that or not, he does know that what he can pay for such advice is far less than what is currently charged by attorneys. So, in most instances, he goes along as best he can without advice. If there were available to him for a small sum a consultant versed in the law who would consider his problem and advise him as to its solution, the average man would be likely to resort to such a counsellor and enjoy the feeling of security and peace of mind which is a luxury he cannot now afford.

There should, therefore, be worked out some plan which would furnish people in these circumstances with the advice they need. The plan should make it possible for the client to consult with an individual lawyer in whom he has confidence and with whom he can establish a personal relationship. There would be required of this lawyer shrewd judgment, wide experience, a pleasing personality, and common sense, as well as a thorough general knowledge of the law. With such assistance, the small business man and consumers in the lower-income group will function more effectively and will be able to avoid many unpleasant difficulties by being warned against the over-reaching, trickery, and cheating of which they are now too often the victims.

One lawyer has had an interesting experience along these lines. He was unable to attend his office, but unwilling to sit at home doing nothing. By

chance, he came into rather intimate contact with a number of people who required legal advice on small problems. When they found out that he was a lawyer and that they could present their problems to him on a business basis, and yet without incurring a charge beyond their capacity to pay, they were only too eager to do so. In order to meet this situation, a special procedure had to be developed, one of the main objects of which was to keep down expense. With a view to minimizing the overhead by avoiding as far as possible stenographers' wages, clerks' salaries, and bookkeeping expenses, no instruments were drawn, except simple wills; no conferences were held with other attorneys; no litigation conducted; there were no appearances in court; no diary or office records were kept; no bookkeeping was required, as no credit was given, and there was, of course, never any loss from uncollectible accounts.

The work consisted solely of consultations with clients, all of which were held at the lawyer's home. The clients simply came, stated their problems, received guidance and advice, and departed, after paying their moderate fee, satisfied that some, at least, of their perplexities had been resolved. The client was charged one dollar as a retainer before the consultation started (in order to discourage wasting time over trivial questions) and after the consultation was charged as much more, up to ten dollars—the highest fee charged—as the advice warranted, and the client could comfortably pay. Every effort was made to insure that no work was done for clients who were able to pay the usual charges of established lawyers.

These conferences revealed the layman's lack of knowledge about some of the most elementary legal rules governing his day-to-day conduct—a lack appalling to a lawyer. One man, who was arranging to buy a secondhand automobile, which the seller tendered to him, together with the bill of sale, was astonished to find that even when a bill of sale was included in the transaction, it would be without validity unless the maker of the bill of sale had title to the car. He had heard that a bill of sale was necessary to perfect the transfer of title and, consequently, he thought that the inclusion of a bill of sale in any such transaction necessarily validated it. When the requirements necessary for passing a good title were explained to him, he promptly telephoned the finance company through whose assistance the car had been bought from the manufacturer, and ascertained that, while the man offering the car to him had been the purchaser from the manufacturer, and was therefore in a position to give a valid bill of sale, there was still \$44 of the purchase price unpaid, though one of the representations had been that the car had been paid for in full. This difficulty seemed an insuperable obstacle to the purchaser, until it was suggested that he make his payment in two checks—one for \$44, which the seller was to endorse to the finance company and give to the purchaser (who would im-

mediately mail it to the finance company, thus completing payment for the car), and the other for the balance of the purchase price, to be retained by the seller.

One of the outstanding features of the problems presented by some of these clients, and one which made the solution of many of them so simple for the experienced practitioner, was the client's complete lack of acquaintance with various business tricks and practices. The following is an instance:

A mechanic who had done a repair job on an automobile was paid by means of a check drawn to the order of cash. This check was drawn by some third person and delivered by the car owner to the mechanic. The mechanic deposited the check which, however, was returned by the bank because of lack of funds in the maker's account. The mechanic then went to the car owner, told him that the check had not been paid, and asked him for payment for the work. The car owner, feigning great indignation, asserted that he had paid in cash at the completion of the job and would not pay again. It was explained to the mechanic that, had he insisted on the car owner's endorsing this check, even though it was a check drawn to the order of cash, all difficulty would have been avoided, as the endorsement would both have identified the man who gave the check and operated as a guaranty of payment. The mechanic had never heard of the necessity of endorsing checks (in fact, he had never theretofore received any check except one drawn by the person who tendered it in payment). After the effects of endorsement and negotiability had been briefly explained, the mechanic left, with the statement that he felt that he would never again be tricked in that way, and would thereafter, he hoped, know how to handle payments made by check.

Another sphere in which people are extraordinarily unfamiliar with matters that concern them vitally is that of insurance. It often happens that an agent sells a prospect insurance ill-suited to his client's requirements. He needs outside, unprejudiced, and independent advice as to the type of insurance he should take. In these times, when income is diminishing and people are losing their jobs, the likelihood of forced defaults in the payment of insurance premiums is considerable. The consequences of default should be carefully explained to a client before he makes any insurance commitment. As little as possible of the premium should be used to pay for any form of insurance which will entirely lapse in case of default, and as much as possible of the premium should be used for the payment of some form of policy which will not lapse in case premium payments are discontinued.

Moreover, the provisions of a policy are often not understood. In one case a widow was clearing out her late husband's papers and came upon an insurance policy on which no premiums had been paid for more than fifteen years to her certain knowledge. She was about to throw it away when some "friend" of hers offered her ten dollars for it. Before accepting this offer she happened to meet someone who advised her to seek counsel. The lawyer to whom she went suggested that before sell-

ing the policy at any price she communicate with the insurance company who issued it. This she did, and found that while the policy had in fact lapsed, premiums had been paid on it at the beginning for a sufficiently long time so that it had a paid-up value at the time it lapsed of something over \$125. By filing proof of death with the insurance company, she was able to collect this money. The fact that lapsed policies often have death benefits, if not cash values, is something very few people seem to realize.

One of the cases which illustrates perfectly the advantage derived by the client from being advised in advance instead of *ex post facto*, is the following: A man wanted to sell his *Ford* and to apply the proceeds of sale to the first payment on a new *Plymouth* car. He had been offered \$175 for his *Ford* by a half dozen secondhand car dealers, when along came a dealer who offered him \$200, and agreed to take the *Ford* in the fall of the year, and sell him the *Plymouth* the following spring, thus saving him six months' garage charges, as well as giving him a twenty-five dollar advantage on the market price. Someone sent him to a lawyer before the transaction was consummated, and he asked whether he would not be perfectly safe in entering into it. The lawyer asked him whether he would be willing to lend the secondhand dealer \$175 in cash, and he said, "Of course, I wouldn't. I don't know anything about him." It was pointed out to him that the transaction, cleverly disguised so that its operation would not be readily apparent, was really a loan of \$175 by him for six months to the secondhand dealer. He would hand over his *Ford* in the fall to the secondhand dealer, who would immediately sell it for \$175, and pocket the money. In the spring, the dealer might or might not deliver the *Plymouth*, which in turn might or might not be a new car. When it was thus explained to him, the client quickly saw that by this arrangement the dealer would have the use of \$175 for six months. Had he, however, not been advised he would, in all probability, have lost the proceeds of his *Ford* entirely, as the secondhand car dealer happened in this case to be completely irresponsible, and having once obtained the \$175 from the sale of the *Ford*, would never have been heard of again. It is true that the *Ford* owner could, if he found himself tricked, have brought a suit at law to recoup himself, but this would not have met the situation. He would still have been out of pocket, counting the time he lost and the fee of his lawyer. Manifestly, then, the bit of prior advice which he received was vastly more valuable to him than his right of action after he suffered damage.

If we may assume the value of establishing a moderate-priced source of legal advice, it seems to me that the most important part of the problem is to persuade people to take counsel before they enter into transactions which may get them into trouble. In other words, the time to seek legal advice is *before* one gets into difficulties. If advice were obtained in time, it would go a long way toward eliminating the trickery and fraud which victimize so many people who lack the necessary business experience to take care of themselves and their affairs. The problem has two aspects: (1) to

make people aware of the difficulties in which they may involve themselves if they do not take counsel and (2) to interest lawyers all over the country in the problem so that sound legal advice is available for a charge the clients can afford to pay. The profession at large should give some consideration to working out a generally applicable plan.

WILLIAM S. WEISS

Editors' Note. This article puts forth an excellent suggestion for young lawyers just starting to practice. We would go further than Mr. Weiss in suggesting that not only the profession but local consumers' groups as well should give some consideration to working out a plan for group legal service. Consumers wishing advice on leases, installment and purchasing contracts, and insurance will do well to look into the possibilities of securing some capable lawyer in their community who for a small yearly fee from each member of the group will act as their legal consultant on such matters.

I Read an Ad—but Never Again (*The Stroller's Column, reprinted by permission from MODERN MERCHANT AND GROCERY WORLD, March 9, 1935*)

DYEA KNOW, I don't believe I'll ever read no more ads. There ain't nothing in 'em. I just got through reading one, and doing what it says, and all it done was to git me in a jam.

I been reading that Lifebuoy Soap ad. You know the one that has them pickstures where a guy's been smelling up the office, but don't know it, and the rest of the people in the place talking about him behind his back, and "ain't it a pity?" and all that, and one day somebody gits it across to him that while he's a nice guy he smells like a polecat, and he goes home and takes a bath with Lifebuoy, and the next day a dame worth \$40,000,000 picks him up in the street and drags him off to be married.

After reading that I says to myself, "I wonder—I just wonder—whether that might be the reason why I don't git no invite to any swell dances. I just wonder. Well, it's easy to try out."

So on the way back home last Sattaday I buys me a cake of Lifebuoy and after I got home and heard all my wife's troubles I says to her:

"I'm going to take a bath." I didn't peep no peeps about the Lifebuoy.

"What's the matter with you—sick or something?"

"Being a gent, I ain't answering that," I says. And then I went upstairs and got in the tub with me cake of Lifebuoy. Believe me, I soaked good. Give it a break, I says.

Then, as sweet as a baby just born, I goes downstairs, wondering if anybody'll gimme an invite to a dance that night.

My wife was in the setting room reading the paper and for a minute she didn't say nothing. But in a minute she said:

"Say, what's that smell? You been disinfecting yourself? You have no business to let yourself get into such a condition as that. Phew! Terrible!"

I didn't say nothing, I hadn't nothing to say, special.

In a minute she went out of the room. She didn't say why, but I had me idea.

I heard her talking to herself upstairs and in a minute she come rushing down.

"What in heaven's name are you trying to do?" she says. "Using that dog soap on yourself! Are you crazy?"

"Tain't dog soap," I says, "I seen an ad—"

"Well, I'll soon find out if it's dog soap," she says. "It smells *exactly* like the soap Mary Klauder uses for her dog. Anyway, I'm going to see."

So she calls up Mary.

"Say, Mary," she says over the phone, "something terrible has happened over here. Jim's started to use dog soap on himself. I don't know what he's got—I think he's crazy. What? No, he hasn't barked yet. Say, tell me—what kind of soap is that you use on the pup? Is it red and smells of carbolic acid? Right! That's it—I knew it, that's it. Goodby."

"What's got into you?" says she to me. "You smell terrible! Worse than before, even."

That was a nasty crack, but I didn't say nothing. I hadn't nothing to say, special.

At the supper Junior says as soon as he set down:

"What's that terrible smell, mommy?"

"It's your father," says she, "he read an ad."

"Do we have to have it all the time, mommy?" says he.

"We do not," says she, "because if it keeps up, you and I will leave."

"But it's nice for you," she says to me, "because now you and Mary's pup can take your baths together."

Well, it wore off some later, but I'm a spunky little thing when I git going, so I took another bath with it the next day. Then I tiptoed downstairs and set down in a chair without saying nothing. My wife was there.

"Oh, my!" she says in a minute. "You've gone and stirred it all up again, haven't you? Oh, dear, how can you do such a thing! Now you look here! When you go away tomorrow you'll take that soap with you. I'm not going to have it here. You can smell up the road a little."

Well, after a night in the spare room I leaves. And believe it or not, the very first customer I called on give it to me again.

We'd been talking a minute or two when he says:

"Say, is it you that smells that way? Carbolic acid? My gosh—that's strong."

"It ain't nothing but Lifebuoy," I says, "something you sell right along."

"I see," says he, "so you had to come to it at last, eh? Well, well! Suppose we get through with our business, I got to have relief."

Nobody ain't invited me to dances or nothing. And everybody seems to like the old smell better than the new. And take it from me, I read no more ads. You guys'll take me as I am from now on.

THE STROLLER





Cumulative Index

General Bulletin, Vol. IV: October, 1934, to June, 1935, Inclusive

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Consumers' Research, Inc., Washington, N. J.

SPECIAL BULLETINS FOR EARLY DISTRIBUTION

1. Paints, Varnishes and Paint Materials

Millions of dollars are squandered annually by consumers through the improper selection and application of paints in spite of or because of the diligent but non-informative advertising campaigns launched during the past three years by national paint manufacturers. No small part of this waste is due, of course, to the poor quality of the paint, but improper selection and application, especially application, probably come in for the lion's share of the spoils.

This bulletin, which runs to approximately 70 mimeographed pages, is a compilation of material previously issued by CR brought up-to-date, together with extensive new and additional information. While the reading of this bulletin will not necessarily make an expert out of a layman, it may enable him, if the information is properly used, to avoid a good many costly errors in the selection and application of paints. From the standpoint of a consumer of paint, it is perhaps the most useful and practical treatment of the subject now available for consumers' use. The bulletin is confidential and is available to subscribers to the combined service only. The price is 75 cents. A condensed outline of the subjects covered follows:

« **INTRODUCTORY**—General discussion of paints, their selection and application—Few fundamental principles of paint making and paint application established—Buying paint by formula vs. buying paint by brand—Paint programs for individual owners.

« **PAINT INGREDIENTS**—Interpreting the formula on the labels—Table showing most favorable proportions of ingredients for comparing brand paints.

« **PAINTING EXTERIOR WOOD SURFACES**—Selecting the paint—Application of paint (in general, varnishes not recommended for house exteriors)—Preparation of surface—Priming wood surfaces (aluminum paint for priming purposes recommended)—Choice of pigments (white lead, zinc oxide, basic lead sulphate, lithopone, titanium pigments, extending pigments or fillers)—Vehicles (linseed oil, tung oil, thinners)—Paste paints vs. prepared paints (recommendations and non-recommendations).

« **PAINTING EXTERIOR METAL SURFACES**—General discussion of corrosion—Preparing surfaces—Application—Red lead—Listings of red lead paints.

« **INTERIOR PAINTING**—Painting metal interiors—Plaster—Wallboards—Flat wall paints—Listings of wall paints and primers—Gloss wall paints and trim enamels (listings)—Floor paints—Paints for wainscoting.

« **VARNISHES**—General discussion of varnishes—Composition—Floor varnishes and furniture varnishes—Recommendations and non-recommendations.

For subscribers to the combined service only

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Please send me the special Bulletin on PAINTS,
VARNISHES & PAINT MATERIALS. I enclose \$75.

Name

Address

« **PAINT SPECIALTIES**—Aluminum paints (listings)—Bituminous paints (listings)—Marine paints (listings)—Shingle stains—Laboratory enamels (special formula for acid-proof wood stain)—Galvanized iron—Cement paints—Paints for toys and nursery furniture—Fireproof paints—Lacquers (listings)—Quick drying colored enamels.

« **MATERIALS RELATED TO PAINT**—Shellac—Stains—Whitewash—Water paints—Putty—Paint and varnish removers (burning off, alkalies, solvents, listings)—Care of paint and varnish brushes.

« **TOXICITY OF PAINTS** and hazards involved.

2. Advice on the Choice of an Oculist, etc.

Together with Reprint of Article on "The Eyes"
(from Handbook of Buying, Nov., 1933)

The article on "The Eyes" which appeared in the November, 1933 *Handbook of Buying* elicited so many comments from both experts and laymen that it was felt that a fuller treatment of the subject was warranted. As a result, a special mimeographed bulletin entitled "Advice on the Choice of an Oculist, etc." has been prepared.

This bulletin discusses mainly the question of the relative value, to the patient, of the training and methods of the oculist as compared with those of the optometrist. It also elaborates upon and clarifies various other controversial points, such as the use of "drops" in examining the eyes, toric lenses, etc. For convenient reference the article on "The Eyes" has also been reproduced in the special bulletin.

The bulletin is 12 pages in length (including the reprint) and is now ready for distribution. It is non-confidential and is available to anyone at 50 cents.

An outline of the subject matter of this bulletin is given below:

« **THE QUESTION OF SPECIALIZATION**—Oculists or optometrists?—Inadequacy of optometric training to deal with eye diseases—Need for clearer understanding of the difference in function between oculists and optometrists—Significance of eye symptoms frequently serious.

« **DROPS**—Restriction of use—Refraction without drops—Drops and glaucoma.

« **FURTHER NOTES ON OPTOMETRIC TRAINING**—Schools of optometry: entrance and graduation requirements—Ratings of schools—State control of optometry.

« **MISCELLANEOUS NOTES**—Advice on the selection of an optometrist; the factor of state control—Buying spectacles from stock; stock spectacles and strabismus (cross-eye)—Toric (or curved) lenses; advantages—Frames: style improvements not therapeutic improvements—Ocular neuroses; frequent prescription changes needless.

CONSUMERS' RESEARCH, INC. WASHINGTON, N.J.
Please send me "Advice on the Choice of an Oculist, etc." I enclose \$50.

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Address



SKIN DEEP

The truth about Beauty Aids—Safe and Harmful

By M. C. PHILLIPS

evidence that the Koremlu Company would have voluntarily ceased operations, since reports of illness and injury caused by Koremlu appeared in the *Journal of the American Medical Association* more than a year before the company was finally forced into bankruptcy because of the numerous damage suits brought against it." (from *Skin Deep*, page 228)

"The childlike faith of most feminine consumers in the efficacy of his product is not shared by the cosmetic manufacturer when he is talking off the record. Lest you think this an exaggeration let us see what the cosmetic trade discusses when you are not around to listen in." (from *Skin Deep*, page 168)

"Despite the fact that all reputable physicians recognize the danger in the use of thyroid, and despite the fact that they have stated that the uncontrolled use of the drug has been the cause of fatal cases of poisoning; despite the fact that only small dosages should be used, under strictest medical supervision to observe their effects, and that thyroid, if self-administered, may cause serious disturbance of the nervous system, *Marmola* still goes on." (from *Skin Deep*, pages 143-145)

These books are available to CR subscribers in special editions at half the price of the regular trade edition in the case of *Skin Deep* and less than half the price in the case of *Partners in Plunder*. Please use the order blanks below.

CONSUMERS' RESEARCH, INC.
WASHINGTON, N. J.

Gentlemen:

Enclosed please find \$1 for which send me, fully prepaid, one copy of the special CR edition of *Skin Deep*, by M. C. Phillips. I am a subscriber to Consumers' Research combined service.

Name
Street
City and State.....

WHAT GOODS ARE MADE FOR

You, as a consumer, have a right to expect that the goods and services you buy should be *usable*. Are they? You will find in these books reasonable grounds for suspecting that big business has other and, to it, more important reasons for making and selling commodities.

(EXCERPTS FROM SKIN DEEP AND PARTNERS IN PLUNDER)

"To the average consumer, however, it seems somewhat unreasonable to wait, as for example, in the case of Koremlu, until hundreds of women have been injured for life before deciding that the product is harmful and should be withdrawn from the market, nor is there any

"A careful investigation of filling prescriptions in Chicago's drug stores recently revealed that 300 out of 400 prescriptions were incorrectly compounded." (from *Partners in Plunder*, page 178)

"It is as normal in a profit-oriented economy to arm an American schoolboy to kill German schoolboys as it is to sell him lead-poisoned candy and apples. . . . It is as normal to recruit millions of the credulous in uniformed fascist bands and throw the dissidents into concentration camps as it is to sell them *Pepsodent* tooth paste with cheap and false Amos 'n' Andy caricatures of Negro mind and life." (from *Partners in Plunder*, page 24)

"Research carried out by the National Council for Safety indicates that a very high percentage

PARTNERS IN PLUNDER

By J. B. MATTHEWS
and R. E. SHALLCROSS



CONSUMERS' RESEARCH, INC.
WASHINGTON, N. J.

Gentlemen:

Enclosed please find \$1.15 for which send me, fully prepaid, one copy of the special CR edition of *Partners in Plunder*, by J. B. Matthews and R. E. Shallcross. I am a subscriber to Consumers' Research combined service or *General Bulletin*. (Please cross out the one which does not apply.)

Name
Street
City and State.....





Mantel Clocks

THE "NEW MODEL" racket is an old one, and one to which CR's subscribers have for the most part doubtless become resigned. On one type of consumers' goods after another CR has issued reports only to find that the particular models tested have become "obsolete" during the time it took to test them, or at least that they are "superseded" as soon after the publication of the report as the maker or dealer can think up a new gadget to add so that he can claim new and unprecedented improvement—especially if CR has found the article defective, or poor in design or performance.

We had hoped, nevertheless, that the ancient and honorable trade of the clock maker might enjoy that stability of models so lacking among other branches of present-day business; that the supposedly conservative models of mantel clocks, at least, might last out the year. Accordingly, when our consultant suffered an unfortunate illness, delaying for some time the progress of our tests on mantel clocks, we felt no serious alarm.

Our optimism about this supposedly reliable and steady trade appeared, however, to be poorly grounded. Of the five models purchased, only three were found, less than a year later, to be still purchasable from the dealers from whom we bought them. One of the models, indeed, turned out to have been discontinued so soon after our purchase of the clocks that even if the tests had *not* been delayed their results could not have been issued in time to find the clock still on sale.

Actually, of course, such shifting of models in mantel clocks is sheerest nonsense. Anyone familiar with the trade knows that the better movements have been established for many years, subject to no changes beyond, perhaps, the gradual cheapening of construction through substituting thinner and lighter parts which suffer serious wear in five years instead of twenty, or fifty—merely another case of the general degradation of quality in a society which serves the interest of the profit maker as against that of the consumer. And since it is the movement of the clock, not its case, which determines its accuracy and its value as a time keeper, CR's tests of time-keeping ability are not rendered obsolete through the mere changing of the inlay on a cabinet or modernization of the numerals on a dial. Fortunately, models of the two clocks listed *A. Recommended* on the basis of comparative tests are, to the best of our knowledge at the time of writing, still available.

The importance of having an accurate clock in the home has, of course, greatly increased in modern times. If, for instance, you *know* that your clock keeps correct time to within a few seconds, you can be ready to turn off the radio (if you still listen to it at all) at just the right moment to prevent "Amos 'n Andy." But if your clock is apt to be off two or three minutes, you run serious risk of having inflicted upon you, if not the first "See heah, Kingfish!", at least the Pepsodent Company's latest utterances informing you that their mouth-

wash is something else than just so much "mouth-wash."

The tests made for CR, designed to discover the comparative reliability of the clocks as time keepers, included investigations of variations in the "rate" of clocks under temperature changes, variations as the clocks ran down (called want of *isochronism*), and those erratic variations in time-keeping which are referred to as irregularities because they have no immediately apparent causes and are not reproduced in successive tests. Irregularity is, of course, the worst sort of variation in a clock, since it cannot be predicted, whereas once the nature of the other types of variation is known, mental allowance can, to some extent, be made for them.

The effect of temperature on the *Gilbert* clock was most pronounced: it wouldn't run at all in the test at 91° F., a temperature which few places in the United States fail to reach, at least occasionally, during the summer. While the other clocks, except the *Plymouth*, showed indication of appreciable variation in rate over the range of room temperatures (60° to 80° F.), we judged that none of them would be likely to become considerably in error from this cause in a living room with only the ordinary temperature changes.

The *Poole* clock was not subject to isochronism error, since it is not a spring-driven eight-day clock. In eight-day clocks, the main spring causes the pendulum to be given a slight push at every swing to keep it going, but the push becomes weaker as the spring unwinds. The pendulum then swings through a smaller arc and a shade more frequently. Hence the speeding up as the clock runs down. The *Poole* clock, however, is driven by flashlight batteries which cause the pendulum to be given a push a few times every minute—whenever the arc through which it swings decreases to a certain amount. While it is conceivable that it may suffer some change in rate as the batteries get old, tests over nearly a month failed to indicate such effect. Among the spring-driven clocks, the *Plymouth* showed negligible isochronism error. The *Gilbert*, however, had outstandingly bad isochronism error: wound on a Thursday, it lost over a minute by the following Sunday and then caught up again before the week was out when it was rewound. Only the *Sessions* performed more poorly in this respect: wound the same Thursday, it lost over a minute and a half by Sunday, but likewise caught up again before time to rewind.

Both the *Ingraham* and the *Gilbert* were notably irregular. Over two five-day periods in which all external conditions were as nearly identical as possible, their rates on corresponding days differed on the average more than half a minute, or from four to six times the average difference in rate for the other clocks. On the basis of these tests, the following comparative ratings are made, clocks being listed in the order of excellence of their performance in the tests.

A. Recommended

Plymouth, Cat. No. 1332 (Distributed by Montgomery Ward) \$6.98 plus postage. Performed well on all tests. We are informed by the distributors that No. 1338 in their current catalog is the same as the model tested.

Poole, Model No. 5 (Poole Mfg. Co., Inc., 174 5th Ave., New York City) \$20. Some temperature variation.

C. Not Recommended

Sessions, Cat. No. 9294 (Distributed by Sears, Roebuck & Co.) \$8.98 plus postage. Bad isochronism error. Some temperature variation. Not listed in current Sears Roebuck catalog.

Ingraham, Cat. No. 9224 (Distributed by Sears, Roebuck & Co.) \$6.98 plus postage. Generally poor performance. Also not listed in the current Sears Roebuck catalog.

Gilbert, Cat. No. 1309 (Distributed by Montgomery Ward) \$7.48 plus postage. Refused to run at 91° F. Generally poor performance. The latest price is \$5.95 plus postage.

Fads, Fashions, and Fallacies in Medicine

(Reprinted by permission from the New England JOURNAL OF MEDICINE, September 13, 1934)

IT IS A familiar and recognized tendency of the human mind, especially the American mind, to seize upon any new thing and make a fad or fashion of it, merely because it is new, irrespective of whether, upon sober consideration, it promises to prove rational or fallacious. This characteristic may be observed not only in politics and in the sartorial arts, but in hygiene, in medicine, and in the other sciences as well. In the field of medicine it is exhibited chiefly by the laity, yet not by them exclusively. Sometimes, some doctors, in spite of their professional training, are not immune from the disposition to make a fad of some item of technique or treatment, or some bit of laboratory suggestion.

Examples of fashion in medicine may be found in the fields of dietetics, of obstetrics, of pediatrics, and of surgery. One of the prevalent dogmata in the feeding of children is that every child must drink a quart of milk and eight ounces of orange juice daily in order that his teeth may grow hard and strong. Whatever the laboratory evidence on which this theory is based, it is probably true that heredity plays a larger part than diet in the characteristics of the teeth, as of the other tissues of the body. In a family of children all fed alike, where one parent has good teeth and the other poor, the qualities of the children's teeth will follow Mendel's law, irrespective of diet. Now milk is not a natural beverage of the human being, or of any other mammal, after the period of infancy. It may be that the human race has become, in a sense, parasitic on the cow; but this parasitism, due to inability or unwillingness of the human female

to fulfill her function, need not extend beyond the first year of life. Some children, after drinking the milk and orange juice which are their required quota for breakfast, have little appetite or room left for the bacon, bread, cereal, egg, and fruit which should be the chief staples of their meal.

When vitamins were first discovered and their relation to deficiency diseases noted, the idea was promptly seized by the laity and commercially exploited by the trade for profit. In the popular mind the importance of vitamins has been grossly exaggerated, and their use carried to excess. Because an adequate amount of the various vitamins is essential to good health is no reason why every human being should be consistently overdosed with them from birth. A little whiskey may be good for one occasionally, but it is not a desirable or exclusive essential of every meal. Other fruits contain vitamin besides oranges.

The same commercial phenomenon may be observed in the matter of cereals. It is questionable whether any cereal, except possibly rice, is superior or equal as a food to oatmeal—one of two things which have made the Scots a hardy race. The multitude of breakfast foods which most people eat in lieu of oatmeal are for the most part inferior and expensive substitutes foisted upon the gullible public by advertising methods which create a fashion or fad in their favor.

In obstetrics and in surgery a variety of fashions within the past forty years have had their little day and ceased to be. Scopolamine-morphine anesthesia, the fad of a generation ago, is now in the way of being discredited, after costing the lives of a good many babies. The barbiturates are the fashion of today, and may be no more permanent. Even the use of ether has been overdone in obstetrics. Universal episiotomy or universal version are no more likely to prove desirable than universal tonsillectomy or universal circumcision. Thirty years ago nephropexy was the fashionable operation upon women. Few things in this world are momentous enough to be universal except death and taxes.

In all these phenomena we see merely manifestations of the common mental process of unconsidered generalization, the tendency, from which even some physicians are not exempt, to seize upon any new drug or operation or technique or theory, and apply it to all sorts of conditions to which it may not be adapted. Thus arise the fads, fashions, and fallacies of medicine. It is the old dogma of the panacea, the tendency to believe that any new thing which may be good or true under certain circumstances can be universally applied with benefit. Of course new ideas must be tested, but with a wholesome skepticism, a resolution to hold fast only that which proves to be correct, and its corollary to abandon that which has been serviceable only when it is clearly demonstrated that something else is better. By such an attitude the doctor may avoid the temptation to be "blown about by every wind of fashionable doctrine," bearing in mind rather Pope's admirable and Polonius-like maxim:

"Be not the first by whom the new is tried
Nor yet the last to lay the old aside."

Life Ends at 11:45

Pitkin to the Rescue of Advertising

ADVERTISERS ARE IN a panic. There is no doubting the chief source of their discomfiture. Roy Durstine, of Bruce Barton's advertising firm, speaking to the recent session of the United States Chamber of Commerce, laid much of their present difficulty at the door of CR. Doughty Anna Steese Richardson, on the editorial staff of the Morgan-Crowell *Woman's Home Companion*, reports, after a nation-wide tour in a frantic effort to erase the public doubts about advertising, that the women of the country quoted CR to her constantly. Their attitude was so upsetting to Mrs. Richardson that she declared she felt she was beating her hands against a stone wall. A leading trade journal recently lifted its voice in a demand for some enterprising author to bring forth a book that would re-establish advertising in the confidence of the people. Whereupon, *Business Week* announced that Walter B. Pitkin was working on just such a tome. The book, entitled *Let's Get What We Want* (Simon & Schuster, New York), is now before us.

Mr. Pitkin—a professor at Columbia University, however hard you find that to believe—is evidently dissatisfied with the notable failure of T. Swann Harding, government publicity expert, to whitewash the business sepulchre by attacking *100,000,000 Guinea Pigs*. Pitkin spends close to one hundred pages of this newest work breaking a lance on the book of Kallet and Schlink. So important has their work become in the fight for the protection of consumers that Mr. Pitkin now refers to them familiarly as K. & S.

Mr. Pitkin takes exception to the statistical methods of K. & S., by which they arrived at the estimate that several years are taken from the average American life through the wide distribution of deleterious foods and drugs. Mr. Pitkin's own statistical method leads him to the estimate "that our lives . . . may be shortened fifteen minutes in this manner, but probably not." He doesn't say it, but the inference is plain that this conclusion in general acquits the business world of the charges brought by K. & S. What patriotic and friendly-to-business citizen would not gladly give fifteen minutes of his allotted span for the greater profit and glory of the advertisers, adulterators, and poisoners! Why quibble about hanging on till midnight; when the party will then be over anyway, and death at 11:45 will add so much to the happiness of the ad-agencies and the modern Borgias of patent medicine and processed foods? The makers of germ-laden ice cream, and chemicalized bread, and artificial vinegar and wine ask only fifteen minutes of each of us. On the basis of Pitkin's own method we (not he) arrive at the conclusion that another three minutes must be subtracted from the collective American life on account of homicide. Why, then, all this bother about running down the Dillingers and the Hauptmanns when we are asked such a trivial price for the thrills of Flemington (a town, by the way, which has twice had serious trouble with infected milk

causing many serious illnesses)? On the Pitkin reckoning, the gunmen and kidnappers require only one fifth as much consideration from us as the purveyors of deleterious foods and drugs.

Mr. Pitkin's spirited defense of business in general is not quite complete. On the subject of process cheese he is mercilessly exacting, due, it appears, to the fact that he has a remaining un-degraded taste, that for real cheese, as against near cheese. "Do the makers of this 96-cent store cheese [process cheese] believe they can get away with murder?" he demands. From such remarks, we gather that Kraft-Phenix is not among the business leaders who encouraged or subsidized the writing of this volume. It is equally clear that Mr. Pitkin is simply airing a pet grievance on the subject of cheese—one of the few areas in which his taste has survived the general collapse of business men's standards—and that if he were equally sensitive to other food degradations and adulterations he would, much against his *other* best interests as made patent in his book, be in the ranks of the crusaders for consumers. To the unwary, such an outburst against process cheese will give Mr. Pitkin's book the appearance of an authentic desire to aid consumers against the advertisers' and salesmen's onslaught.

For the great mass of consumers Mr. Pitkin has nothing but unveiled contempt. "Coolie America," he asserts, "includes anywhere from 40 to 60 million men, women, and children who perforce or by choice live outside the money-and-profit system." (This is strongly reminiscent of Hugh Johnson's 80 million cry-babies.) In his Coolie America "all are content with or resigned to subsistence living." Over against Coolie America, Mr. Pitkin sets, in truly fascist style, the superior people of business society. "The highest achievements," he declares, "are reached by superior people—mostly middle class. By their skill, enterprise, and foresight, they become successful entrepreneurs, the large-scale producers, and the leaders in high-grade manufacturing, distribution, and services." Wherever fraud and poison are found it is due to what Mr. Pitkin designates as mere "back-slips" in the money-and-profit system, and is in no way intrinsically a product of that system. Even nurses are "back-slips" from those "who aspired to the medical profession" but who "couldn't keep up the gruelling pace for one reason or another, and fell back to the lower levels." Here, it would seem, all physicians belong among the "superior people," but elsewhere in the book physicians are roundly berated for their interference with self-medication (Pitkin's unique persuasive way of defending the patent medicine quacks who, by his definition, appear to be among the *most* "superior people," while medical men are relegated to the cry-baby or coolie class of inferior folk.) The American Medical Association, he says, "fights to preserve a monopoly and a pontifical authority which have no place in a civilized society." There is no explanation of how such "su-

perior people" as physicians got that way, or how "superior people" maintain their status *except* by monopoly practices, or how their way of acting constitutes such a blot upon the "civilized society" which patent medicine quacks, as Pitkin sees it, strive to create and preserve. This is only one of the innumerable contradictions left unresolved by this Columbia University exponent of a new "civilized" and Hitlerized America.

Nevertheless, Mr. Pitkin has done his best for his masters; and *Let's Get What We Want* will be hailed in the trade journals as the authoritative and

conclusive answer to the impertinent detractors of advertising; in the newspapers and liberal magazines it will be adjudged to be a sane and objective analysis of the consumers' problems. Consumers will not find it particularly helpful. They may, however, be interested in it as a revelation of how much the business men fear the effects of the work CR is doing for consumers, and the work consumers are doing for themselves in refusing to buy without protest that which they do not want because it is shoddy, debased, and third rate.

J. B. M.

A Report on Non-Leaded Gasolines for 1935

BECAUSE OF THE HAZARDS involved in the use of leaded gasolines, Consumers' Research has this year limited its selection of gasolines for test to non-leaded brands. This means that very few of the "regular" gasolines now on the market are included, as most of the gasoline now being sold contains lead. Thus most of the samples included in this report are third-grade gasolines. After several years of experience in testing gasolines and operating cars in which the third grades were used exclusively, we have come to the conclusion that consumers are seldom justified in paying the extra price for the regular and premium ethylized fuels; when they are required to buy such gasoline to suit their motors, it is often their own fault for purchasing a car on salesmen's representations instead of upon fundamental factors that determine engineering performance.

Our decision to limit this study to unleaded gasolines is the result of our conviction that the use of leaded gasolines represents a real hazard to the health of the workers who produce the gasoline, station attendants, garage employes, truck and taxi drivers, and the vast numbers of consumers, particularly in congested city areas, who are subjected to the poisonous fumes from motor cars burning these products and who have no means of escaping such fumes while they remain city-dwelling consumers and workers. (For other references on the hazard involved in the use of leaded gasoline, see the following: *Confidential Bulletin*, January, 1932, 10c; *Handbook of Buying*, July, 1933, cols. 136-137, 35c; *Confidential Bulletin*, March, 1935, 20c; *General Bulletin*, October, 1933, 25c; *General Bulletin*, January, 1934, 25c.) There is also ample evidence to show that engine corrosion and deterioration of parts is accelerated when ethyl gasoline is used. This point is mentioned in *Confidential Bulletin*, January, 1932, and *Handbook of Buying*, July, 1933, col. 136.

Tests of the gasolines listed herein included as bases for judgment the following characteristics that determine quality: starting, acceleration, tendency to vapor lock, gum formation, corrosion, crankcase oil dilution, and antiknock. For a rather complete discussion of these properties as they relate to engine performance, we suggest that you consult *Handbook of Buying*, July, 1933 (available to subscribers to the combined service only, 35c) and *Special Bulletin*, June, 1932 (available to anyone, 10c). As in previous reports, *Federal Specification*

for Gasoline; Motor, U.S. Govt., VV-G-101, has been used as a general basis for rating the gasolines on most of the points enumerated above.

We have emphasized the increasing necessity, on account of the undesirable trends in automobile engine design, of obtaining a fuel with the higher antiknock qualities. We wish to point out, however, that consumers have been "educated" to believe that only fuels of high octane number can be used satisfactorily in the engines of their cars. As soon as they notice a slight knock with the fuel they are using they conclude that the gasoline is not a proper one for their cars. It is a fact, as has already been pointed out in a previous report (*Special Bulletin*, June, 1932), that when an engine is knocking, the maximum horsepower is being produced and, so far as our present knowledge of the subject goes, this knocking only when considerable, and in severe and exceptional circumstances, will prove detrimental to the engine. On the basis of new information we would go even further and say that if the consumer notes that the engine of his car is not knocking a bit, particularly when the engine is operating under a heavy load, he should conclude that the spark is not far enough advanced and that he is not getting maximum efficiency and economy from the fuel he is using. This means, of course, that he is not getting and cannot get full benefit from many of the regular and premium fuels, because their octane numbers are so high that even present-day high-compression engines do not produce any knock under conditions where slight or moderate knocking is normal and advantageous. In such cases the consumer is simply out of pocket the extra sum paid for such fuels.

In a recent test a car which had not been cleaned of carbon for some 10,000 miles was run on fuels having octane values differing by as much as 25 points, and the spark was set in each case so that the engine would knock. No difference in the speed of the car could be detected when it was driven up the same hill several times consecutively with the different fuels. This demonstrated that *there is little difference in the resultant power obtained by changing to different fuels with different antiknock properties, if the proper spark adjustment is made in each case*. One very important point must be noted, however, and that is that one particular setting of the spark will not work satisfactorily with all fuels and that after the spark has been adjusted for a particular third-grade gasoline, only gasoline of

about the same octane number should be purchased thereafter unless the spark lever adjustment or other adjustment provided for spark-advance control is again changed. Be sure also that your spark adjustment is such that you have a range of motion on both sides of the best running position of the spark lever or other spark-advance adjustment.

In selecting the gasolines for this test, CR has attempted to meet the criticisms of some of its western subscribers by including 6 brands from the Pacific Coast, 9 brands from the Middle West, and 7 brands from the East. For reasons best known to the oil industry and its New Deal coördinators, the third-grade gasolines are gradually being taken off the eastern market; most are gone now. It behooves eastern subscribers to start vigorous protests in order that they may in the future have the economical third-grade, non-leaded, non-poisonous gasolines available for use.¹

In the listings below, the region in which the various samples were purchased is indicated in parentheses immediately after the brand name: (E)—sample bought in the East; (MW)—sample bought in the Middle West; (PC)—sample bought on the Pacific Coast. All brands listed are third grade unless otherwise indicated.

The prices given are actual retail prices per gallon and include state and federal taxes imposed in the particular sections in which the samples were purchased. To a considerable extent, however, these prices, in spite of the variation in tax that may be involved, will be reasonably comparable except in so far as there are price differences inherent in a given part of the country as compared with other parts of the country. Prices in this industry tend to be very nearly uniform, because distribution costs, principally refiners' sales expenses and profits, are very large, providing an ample margin for the variations in price necessary to deal with the factor of "what the consumers at any given place will pay."

Some of the regular gasolines on the market contain benzol to decrease their tendency to knock. Benzol is poisonous, and such gasolines should be used with care. However, we believe the use of benzol-treated gasolines to be much less hazardous than that of leaded gasolines.

¹ It is becoming practically impossible in some localities to buy non-leaded gasolines for cooking, heating, and lighting appliances, in which it is absolutely necessary to use non-poisonous fuel. Refiners have become unwilling to sell mere gasoline, and insist upon "doping" it with all sorts of added materials to make you willing to pay high prices. *Triple-X Tydol*, for instance, contains both lead and lubricating oil—two excellent reasons for not using it in your gasoline stove or lamp or even, for that matter, in the average automobile.

A group of manufacturers of gasoline pressure products (lamps, stoves, torches, etc.) issues national and state lists of approved gasolines for use in gasoline pressure appliances. Such lists are available from the United Laboratories, 240 North St. Francis Street, Wichita, Kans. Consumers are advised to obtain these lists and to give their support to this valuable effort to keep straight-run, non-leaded, non-graphited, non-lubricated, non-poisonous gasolines on the market. We do not have high hopes for the success of this plan since 25,000,000 automobile owners or any other number of consumers will always be a minority in the eyes of this industry, but if any hope lies in the situation, it will come from the activities and insistent protests of consumers who demand lead-free gasoline for their cars and for all other uses.

A. Recommended

Sunoco Regular (E) (Sun Oil Co., 1608 Walnut St., Philadelphia) Two samples tested. 14c to 15.5c. In both samples, antiknock quality superior. Above average in ease of starting and acceleration. Tendency to vapor lock somewhat greater than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution somewhat less than average. (Note B. rating of sample purchased in Middle West.) ¹

Tidex (E) (Tide Water Oil Co., 17 Battery Place, New York City) 14c. Antiknock quality satisfactory. Better than average in ease of starting and acceleration. Tendency to vapor lock somewhat greater than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution less than average. ¹

Capitol (E) (Atlantic Refining Co., 260 S. Broad St., Philadelphia) 14c. Antiknock quality superior. About average in ease of starting and acceleration. Tendency to vapor lock somewhat less than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution about average. ¹

Indian (E) (Texas Co., 135 E. 42 St., New York City) 13.3c. Antiknock quality satisfactory. About average in ease of starting and acceleration. Tendency to vapor lock less than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution about average. ¹

Sinclair (Green) (E) (Sinclair Refining Co., 45 Nassau St., New York City) 15.9c. Antiknock quality satisfactory. About average in ease of starting. Somewhat above average in acceleration. About average in tendency to vapor lock. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution less than average. ²

Stanolind (MW) (Standard Oil Co. [Indiana], 910 S. Michigan Ave., Chicago) 17.4c. Antiknock quality satisfactory. About average in ease of starting and acceleration. Tendency to vapor lock less than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution about average. ²

White Magic (PC) (Union Oil Co. of California, Union Oil Bldg., Los Angeles, Calif.) 16.5c. One of two samples showed superior antiknock quality, the other satisfactory. About average in ease of starting, acceleration, and tendency to vapor lock. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution about average. Some variation in characteristics of two samples tested. ²

Calpet (PC) (Texas Co., 929 S. Broadway, Los Angeles, Calif.) 16.5c. Antiknock quality superior. About average in ease of starting, acceleration, and tendency to vapor lock. Satisfactory with respect to gum formation and corrosion, except that one of the two samples showed slight corrosion. Likelihood of crankcase-oil dilution about average. ²

Metro Gas (MW) (White Star Refining Co., 903 W. Grand Blvd., Detroit, Mich.) 17.4c. Antiknock quality somewhat low. About average in ease of starting. Somewhat above average in acceleration. Tendency to vapor lock somewhat greater than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution about average. ²

Amoco Premium (E) (American Oil Co., American Bldg., Baltimore, Md.) 19.9c. Benzol blend. Best of the 22 samples in antiknock quality. Ease of starting satisfactory. Above average in acceleration. Tendency to vapor lock less than average. Satisfactory

with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution less than average.

AAR

B. Intermediate

Flight (PC) (Standard Oil Co. of California, 225 Bush St., San Francisco, Calif.) Two samples tested. 16.5c. Antiknock quality satisfactory. Somewhat above average in ease of starting. About average in acceleration. Tendency to vapor lock somewhat greater than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution somewhat greater than average. 2

case-on dilution somewhat greater than average. 2
U. S. Motor (MW) (Sinclair Refining Co.) 17.4c. Anti-knock quality somewhat low. Somewhat better than average in ease of starting and acceleration. Tendency to vapor lock somewhat greater than average. Satisfactory with respect to gum formation but showed slight corrosion. Likelihood of crankcase-oil dilution less than average. 2

Silver Shell (MW) (Shell Petroleum Corp., Shell Bldg., St. Louis, Mo.) 17.4c. Antiknock quality somewhat low. Below average in ease of starting and acceleration. Tendency to vapor lock less than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution about average.

average. Indian (MW) (Texas Oil Co.) 17.4c. Antiknock quality somewhat low. About average in ease of starting, acceleration, and tendency to vapor lock. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution greater than average. 2

Demand (MW) (Continental Oil Co., Ponca City, Okla.) 17.4c. One of two lowest in antiknock quality. Better than average in ease of starting and acceleration. Tendency to vapor lock less than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution less than average. Except for poor antiknock quality, would easily rate an A. Probably will give satisfactory performance with older models of cars having engines of low compression ratio. 2

Dixoline (MW) (Lincoln Oil & Refining Co., Robinson, Ill.) 17.4c. One of two lowest in antiknock quality. Somewhat below average in ease of starting and acceleration. Tendency to vapor lock less than average. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution somewhat less than average. Except for its very low octane number, this gasoline would rate an A. 2

Super Shell Regular (PC) (Shell Oil Co., 100 Bush St., San Francisco, Calif.) Two samples tested. 18.5c. Antiknock quality superior. Ease of starting somewhat better than average. About average in acceleration and tendency to vapor lock. One sample satisfactory with respect to gum formation, but the other showed very high gum content. Satisfactory with respect to corrosion. Likelihood of crankcase-oil dilution about average. 3

Sunoco Regular (MW) (Sun Oil Co., Phila.) 18.4c. Antiknock quality superior. Above average in ease of starting and acceleration. Very bad tendency to vapor lock. Satisfactory with respect to gum formation and corrosion. Likelihood of crankcase-oil dilution about average. 3

C. Not Recommended

Traffic (E) (Gulf Refining Co., Gulf Bldg., Pittsburgh, Pa.) 14c. Antiknock quality superior. About average in ease of starting, acceleration, and tendency to vapor lock. Satisfactory with respect to gum formation. Bad corrosion. Likelihood of crankcase-oil dilution less than average. 1

Flash (PC) (Richfield Oil Co., 248 Battery St., San Francisco, Calif.) 16.5c. Antiknock quality satisfactory. Somewhat below average in ease of starting and acceleration. Tendency to vapor lock less than average. Satisfactory with respect to gum formation, but one sample gave positive indication of corrosion. Likelihood of crankcase-oil dilution about average. 2

Blu-Green (PC) (Gilmore Oil Co., 2423 E. 28 St., Los Angeles, Calif.) 16.5c. Antiknock quality satisfactory. Below average in ease of starting and acceleration. Tendency to vapor lock less than average. One sample showed high gum content but was satisfactory with respect to corrosion, while the other was satisfactory with respect to gum formation but showed slight corrosion. Likelihood of crankcase-oil dilution about average. 2

Super Shell Regular (MW) (Shell Petroleum Corp., Detroit) 18.4c. Antiknock quality superior. Somewhat above average in ease of starting and acceleration. Considerable tendency to vapor lock. High gum content. Satisfactory with respect to corrosion. Likelihood of crankcase-oil dilution somewhat less than average. 3

Business Men Buy on Standards

AGAIN WE PRESENT evidence that business men find buying on the basis of standards and grades important for *them* in their business. Their control of the processes of distribution—and over the NRA and AAA—enables them to deny this same method of purchase to consumers: an effective illustration of the virtual dictatorship of business, in and out of government, over consumers, discussed in *Partners in Plunder*.



- Don't confuse U. S. Inspection with Government Grading'. . . U. S. Inspection is concerned only with the *parity* of the meat; whereas Government Grading concerns itself with the *quality*, and is a positive 'assurance of uniformity at all times.'

Pfizer Brothers pioneered the idea of Government grading as an added service to hotels, restaurants, and clubs, and have constantly stressed the importance of serving beef that is both U. S. Inspected and U. S. Government Graded and Stamped.

When you buy from Fladde Brothers, you get double protection! You know that the beef is pure and wholesome and you can tell at a glance whether it's "U. S. CHOICE" or "U. S. GOOD" — according to government standards that never vary.

What's more, you get a "Personalized Service" that follows every order through from the time it's received until it's shipped out — packed in dry ice, all charges pre-paid to you door.

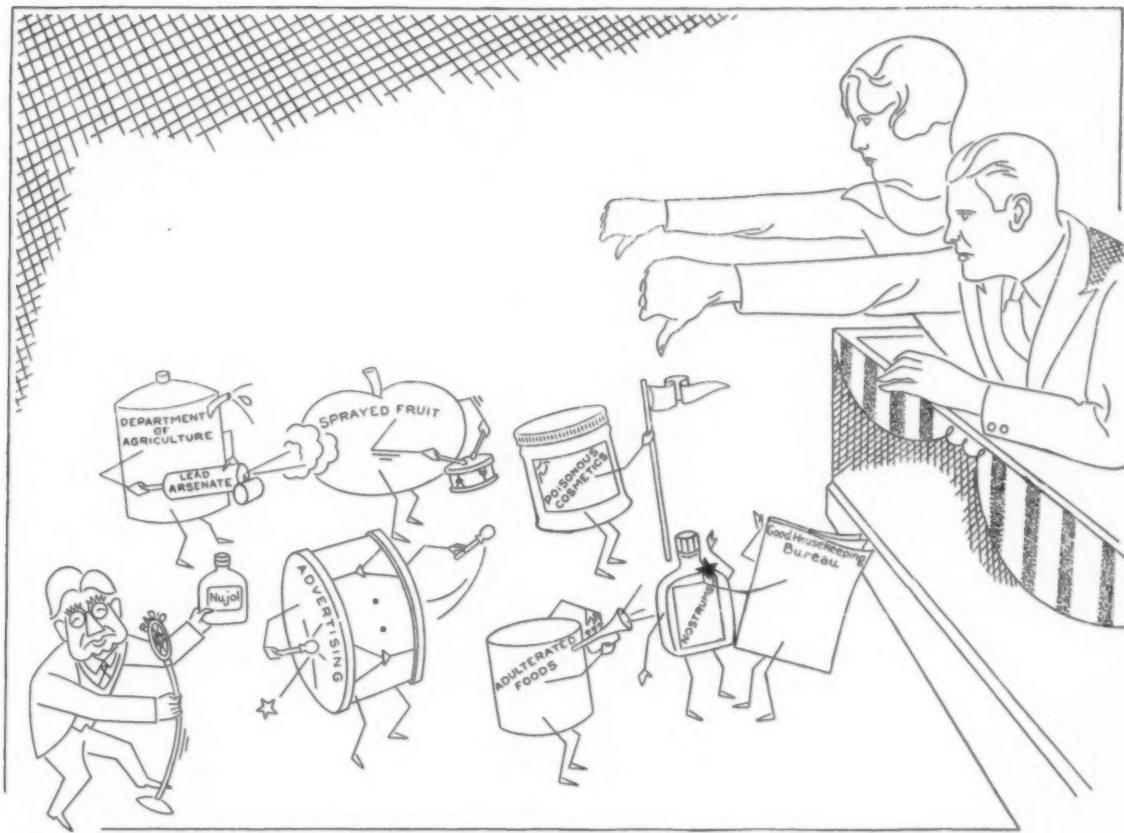
Write for booklet that fully explains U. S. Census
and Coding and "Personalized Service" — get
every issue of the Price List — order by any or
all.

had probably been engaged in all these "Reindeer" runs. The general result indicates that U. S. Indians have preserved their herds to some extent and well above the level of "U. S. CHRISTMAS TEEPS" the great herds promised by commercial exploitation methods. The Indians need no selling these animals in a pure vegetative environment and is entirely harmless. Under some conditions, it is conceivable when meat is wanted.

PFAELZER BROTHERS
UNION STOCK YARDS Dept. 11 CHICAGO
PURVEYORS OF AMERICA'S FINEST MEATS
SERVING 40 STATE

(advertisement from the *Hotel Monthly*, August, 1934)

The Consumers' Salute



Since it is the fashion nowadays for movements to develop their own distinctive salutes, we offer the gesture illustrated above as the authentic Consumers' Salute. The gesture originated with the ancient Romans. Note that it is the reverse of the fascist salute, as a consumer-oriented society would be the opposite of the exploitations and suppressions that obtain under fascism.

Buying an Automobile by Specification

A CR SUBSCRIBER who wanted exact information on *Ford*, *Chevrolet*, and *Plymouth* cars thought he would try the novel experiment of presenting a list of questions about the performance and specifications of all three of these lower-priced cars before deciding which one to buy.

True to the custom of this trade, numerous salesmen at once besieged him. They overwhelmed him with information about the *non-essential* characteristics of their cars, but were generally ignorant on many points which he, as an intelligent and fact-minded consumer, chose to regard as important. In each case the salesmen reported that they were unable to answer a number of the questions, but would endeavor to get the information from the factory or other authoritative source. But we may as well let the subscriber speak for himself:

The *Chevrolet* salesman subsequently reported to me that the factory refused to answer the questionnaire, and

[he] would not even give me a letter to this effect. I later reported this situation to the famous Customer Research Department of General Motors, enclosing a copy of the questionnaire, and they replied that the questionnaire had been forwarded by them to the proper Department of the *Chevrolet* Motor Company, and that I might expect an answer direct from them, although it might take a little time "to compile the material since it will be necessary for them to dig much of it out of the Research records and Proving Ground tests." Nearly a month has passed, but no word has been received from *Chevrolet*.

The *Ford* salesman was quite insistent that the answers which he could give were all that I really needed to make up my mind, but he finally said that he had referred the questionnaire to his superiors to get the remaining questions answered from the factory. Considerable time passed and he said that no reply had been received from the factory, so I finally sent a copy of the questionnaire to the *Ford* Motor Company at Detroit, with a brief explanation of the circumstances. Soon a reply came from the factory at Edgewater, N. J., stating that they could find no record of my inquiry. I presume that it never got any farther than the local dealer's desk. To keep the record clear I sent a copy of the questionnaire to Edgewater a

few days ago, but explained that a reply to the questions was no longer needed since I had selected another car.

I really should have reported on the *Plymouth* before the *Ford* and the *Chevrolet*, because the situation was handled by the *Plymouth* people in such an exceptional manner. Their questionnaire found its way to the factory soon after I gave it to the salesman, and a few days later I received a reply from the Director of Service which was, on the whole, very satisfactory.

After buying one of the three cars investigated, our subscriber received a letter from the local *Ford* dealer, regretting that he had not bought a *Ford*, and apologizing for the delay in answering, but with the following statement:

Our Company policy does not permit us to answer many of the questions you have incorporated in this questionnaire. However, any of our dealers would be pleased to answer any mechanical questions pertaining to the V-8.

Note the absurd contradiction of this happy but misleading generalization. Some hundreds of thousands of consumers do not fall for buncombe of this sort any more, no matter how attractively it is stated. Consumers are justified in expecting and demanding answers to specific questions on automobile performance instead of the usual run of

ballyhoo about all the hot and cold, folding and unfolding, heating and air-conditioning gadgets that serve as a basis for a sales talk. We let you decide whether or not consumers should, when considering the purchase of a new car, receive answers to these or similar questions:

What is the guaranteed miles per gallon when operating under the following conditions: Carburetor set for maximum economy; using gasoline of 70 octane number; driving on level concrete in still air at 45 miles per hr; carrying a live load of 600 lbs; and using normal inflation of tires?

What is the consumption of SAE No. 30 motor oil per 1000 miles of driving under the above conditions?

What is the guaranteed maximum sustained speed under the same conditions as above except for the specified speed?

What type of thermostatic control is provided for insuring quick warming up of the engine in cold weather?

What guaranty, if any, is made with respect to discoloration or other deterioration of the safety glass?

What is the braking area per pound of weight of fully equipped car plus a live load of 600 lbs?

In what distance on level, dry, concrete can the car be stopped from a speed of 50 miles per hour, when carrying a live load of 600 lbs not using free wheeling and not skidding the tires?

What is the engine speed with car in high gear and traveling 50 miles per hour with tires normally inflated?

American City Has Ordinance to Poison Inhabitants

Master Plumbers in Various States, for Good Business Reasons, Resolve to Poison Their Patrons

"**A**LL WATER SERVICES east of Washington Street to be of AA lead. West of Washington Street to be AAA lead." So reads the Plumbing Code of the City of Poughkeepsie, N. Y., which was adopted by the Board of Health and Examining Board of Plumbers.

In contrast to this is the following quotation from *Regulations Governing the Sanitation of Juvenile Recreational Camps*, by the State Board of Health of New Hampshire: "The use of lead pipe as a conducting medium is prohibited."

Thus are the actions of two public boards whose work is related in a vital way to the public health contrasted—one group is alert to the dangers of lead poisoning from drinking water conducted through lead pipes, while the other is either culpably ignorant of or unconcerned with the serious dangers involved. In Poughkeepsie, the citizens are not allowed to protect themselves, even if they wish to, from the dangers of lead poisoning. To be sure, lead pipe has often been used with no known or apparent ill effects, but to require by law the use of lead pipe is to assume a responsibility which no board of health is entitled to assume—with respect to any community or any type of water supply.

The most comprehensive and authoritative treatise on the subject of lead poisoning has been issued by a British governmental body, the Department of Scientific and Industrial Research, London. This treatise informs us that in many cases where lead pipe has been used for long periods with no reported cases of lead poisoning, outbreaks have suddenly developed. Bacup, in Lancashire, for ex-

ample, reported no cases of lead poisoning for 35 years and then suddenly had 300 cases in a single year. A knowledge of the softness of water or of the numerous chemical constituents normally present (which can change radically in a single day, or with the seasons) can as yet give no absolutely reliable indication of the relative safety of using lead pipe to conduct drinking water. "Outbreaks of plumbism due to water supply have in general taken place in towns or districts using comparatively soft water. Numbers of examples are cited in the literature, however, which show that *softness alone is not a definite criterion of the ability of a natural water to attack lead.*"¹ [Italics ours—CR]

The Poughkeepsie Board of Health cannot excuse itself on the ground that only comparatively short lengths of lead pipe will be used for street connections, for short lead-pipe connections may be more dangerous, because of increased electrolysis (electro-chemical corrosion), than conducting systems made entirely of lead pipe. Short lengths of lead pipe in a water line, indeed even a small clock weight accidentally dropped into a well of drinking water, are known to have produced serious lead poisoning.

Although lead poisoning is characterized by various symptoms, some obscure and easily confused with common ailments, or by anemia, paralysis, nervous disability, degeneration of the kidneys, even at times by apoplexy, the medical profession taken

¹ From *The Action of Water on Lead with Special Reference to the Supply of Drinking Water*, by the Dept. of Scientific and Industrial Research; London; 1934; page 55.

as a whole, like the Poughkeepsie Board of Health (which includes two physicians) has ignored its seriousness and prevalence. However, a recent writer in the *Journal of the American Medical Association* calls plumbism "a counterpart of syphilis not only in the variety of its effects on the human system but in the manner in which it may be dormant and unsuspected in the tissues for years, apparently innocuous, until some alteration in the metabolic processes liberates it with unimpaired venom. Like syphilis, it is a contributing cause of many a death for which it does not receive its rightful share of the blame."²

The fact is that present knowledge does not answer the question of when, if ever, lead pipe is safe. *Any use of lead pipe in any amount for drinking water or water that may be drunk on occasion is without question potentially dangerous*, and is a use for which no Board of Health or Plumbing Code Committee should be willing to take responsibility for a moment. In the present state of knowledge of this subject, it is little short of criminal for a city to compel such use.

The danger, however, is not confined to Poughkeepsie. There has recently been started an intense and vigorous movement, gratifying to the industry, to increase universally the use of lead pipe. The following is taken from the resolutions of the New Jersey State Association of Master Plumbers:

Whereas, through the standardization and simplification of connective devices in the plumbing field there has been a constant tendency to introduce and use threaded connections and unions requiring little technical ability beyond a strong arm and a wrench, thus lessening the knowledge and mechanical requirements for craftsmanship . . . now therefore be it

RESOLVED . . . that the use of lead rough work and [lead] water supply be increased as rapidly and to as great an extent as may be possible. [Italics ours—CR]

"During the past year," says the *Dutch Boy Quarterly*,³ a house organ of the National Lead Company, "the state master plumbers' associations in New Jersey, Illinois, Wisconsin, Ohio, Indiana, and Michigan have passed resolutions urging their members to make a wider use of lead in plumbing installations. Similar resolutions have been prepared and will be presented before the assembled plumbers in future conventions of other state associations. . . . It is expected that before very long, most of the master plumbers in the country will be behind this effort to increase the use of lead in plumbing."

Which is exactly the same as saying that before very long most of the people in the country will be face to face with an increased menace of lead poisoning. According to *Lead* (Lead Industries Association, the trade association of the lead manufacturing and distributing interests), "Great savings are effected by using lead pipe"—yes, indeed, and profits, too, for the lead industry. As for the well-being of the inarticulate consumer, who cares?

² A. J. Lanza, M.D., Assistant Medical Director, Metropolitan Life Insurance Company, in the *Journal of the American Medical Ass'n*, Jan. 12, 1935.

³ Vol. 12, No. 2, 1934, page 16.

Not the Lead Industries Association, nor the Master Plumbers, nor yet, apparently, the Poughkeepsie Board of Health.

E. W. CHENEY

A Test of Inner Tubes

THE HAZARDS INVOLVED by the use of inferior inner tubes are so great that considerably more care should be given to their selection than is usually the case with the average automobile owner.

Blowouts which occur most frequently in hot weather are attributable either to faulty tires or tubes. Inner tubes are frequently subjected to extreme temperature variations and may reach a temperature as high as 100° C (the temperature of boiling water). Under such conditions the rubber in the inner tube softens and in an inferior tube thins out and chafes through at some rough spot in the casing, resulting in a blowout and consequent ruin of the tire.

An accelerated life test to determine the quality of 22 brands of inner tubes has recently been completed by CR. It was found that the color of the tube had no apparent relation to quality. The test showed a wide variation in the durability of the various tubes. From the results of this test the tubes have been rated as follows. All are cr 35.

A. Recommended

<i>Kelly-Springfield Standard</i> (Kelly-Springfield Tire Co., 405 Lexington Ave., N.Y.C.) \$1.65.	1
<i>Riverside Brown</i> Catalogue No. 64B317 (Montgomery Ward & Co., Baltimore, Md.) \$1.35 plus postage.	1
<i>Overman</i> (Overman Cushion Tire Co., 30 Rockefeller Plaza, N.Y.C.) \$1.96.	2
<i>Riverside DeLuxe</i> Catalogue No. 64B318 (Montgomery Ward & Co.) \$1.85 plus postage.	2
<i>Armstrong Extra Heavy Red</i> (Armstrong Rubber Co., West Haven, Conn.) \$2.65.	3
<i>Fisk Extra Heavy</i> (Fisk Rubber Corp., Chicopee Falls, Mass.) \$2.65.	3
<i>Seiberling Full Molded</i> (Seiberling Rubber Co., Akron, O.) \$2.65.	3

B. Intermediate

<i>Riverside Red</i> Catalogue No. 64B348 (Montgomery Ward & Co.) \$1.18 plus postage.	1
<i>Leviathan Heavy Duty</i> (distrib. Auto Boys, 8 South St., Freehold, N. J.) \$1.35. Rated B. due to raised molded ridges, which increases difficulty of repair.	1
<i>General Heavy Duty</i> (General Tire & Rubber Co., Akron, O.) \$2.65.	3

C. Not Recommended

<i>Allstate Red Extra Heavy</i> Catalogue No. 28F650 (Sears Roebuck & Co., Phila., Pa.) \$1.12 plus postage.	1
<i>Allstate Gray</i> (Sears Roebuck & Co.) \$1.18 plus postage. Cat. No. 28F360.	1
<i>Dunlop Gray</i> (Dunlop Tire & Rubber Corp., Sheridan Dr. & River Rd., Buffalo, N.Y.) \$1.72.	1
<i>Lee Standard Gray</i> (Lee Rubber & Tire Corp., Conshohocken, Pa.) \$1.62.	1
<i>Atlas</i> (distrib. Standard Oil Co. of N. J.) \$2.20.	2
<i>Firestone Oldfield</i> (Firestone Tire & Rubber Co., Akron, O.) \$1.98.	2

C. Not Recommended (contd.)

<i>Goodrich Cavalier</i> (B. F. Goodrich Rubber Co., Akron, Ohio) \$2.00.	2
<i>Goodyear Pathfinder</i> (Goodyear Tire & Rubber Co., Akron, O.) \$2.11.	2
<i>Hood Red Arrow</i> (Hood Rubber Co., Watertown, Mass.) \$2.11.	2

<i>Goodrich Silvertown</i> (B. F. Goodrich Rubber Co.) \$2.75.	3
<i>Goodyear Heavy Duty Red</i> (Goodyear Tire & Rubber Co.) \$2.75.	3
<i>U. S. Royal Heavy Duty</i> (U. S. Rubber Co., 1792 Broadway, N.Y.C.) \$2.65. Developed a hole during test which was extremely difficult to repair satisfactorily due to a raised pattern of ridges on surface of tube.	3

Utilize Your Electric Meter to Determine the Cost of Operating Any Electric Appliance

THE NEW YORK EDISON and affiliated electric light and power companies have recently been running an advertising campaign under the title of "Jobs a Penny Can Do for You," and they offer a free booklet which gives numerous examples of what, as they claim, can be done with one cent's worth of electricity. The housewife upon reading this pamphlet will be pleasantly surprised to learn that the cost of electricity is so little that for one penny she can "iron 1 pair of pajamas, 2 panties, 5 men's handkerchiefs, 10 girls' handkerchiefs," or for the same small expenditure her toaster "will make 22 slices of toast."

After reading the numerous other examples given in the booklet, she will undoubtedly begin to wonder why her electric bills are so high if electricity is as cheap as the New York Edison Company would have her believe. The answer to this is that the majority of electrical appliances in American homes today do not operate at such a high efficiency that for 1 cent they will do the work claimed for them in this ad unless the electricity rate is abnormally low (about 2 cents per kilowatt hour). An interesting example of actual consumption is that of one of the electric toasters recently tested by CR, which in making 22 slices of toast consumed 420.8 watt hours, and this is not extreme at all for a toaster. Cost of operation may be computed from a table of electricity rates recently printed in the *New York Times*, where it is seen that the average rate for the first 25 kilowatt hours for the Boroughs of Brooklyn, Manhattan, Bronx, and Queens, and the City of Yonkers, approximates 8 cents per kilowatt hour. At 8 cents per kWh, 420.8 watt hours would amount to 3.36 cents, as against 1 cent as claimed by the public utility company.

Another claim that for 1 cent an electric waffle iron will bake 3 waffles was checked, and it was found that 250 watt hours were consumed in baking 3 medium waffles. This, at 8 cents per kilowatt hour, would amount to twice the cost claimed.

It is believed by CR that if many householders knew what their various appliances cost to operate, and if they knew how to discount the public utilities' advertising which exaggerates the amount of work that can be done with a unit of electrical energy, the use of many electrical appliances would either be discontinued or at least greatly restricted. But since householders are not equipped with the expensive instruments required to determine the energy consumption of a particular appliance, they

have only the salesman's word or the word of the advertiser (both of which can usually be entirely disregarded as guides) for what the operating cost will be. Hence the following comparatively simple method for determining the cost of operating any particular appliance is given:

All household meters are equipped with an aluminum disk that rotates slowly when current is being consumed. This disk is usually marked with a black spot, arrowhead, or other means of noting its rotation. Put out all lights and disconnect all appliances in the house and then examine the meter to make sure that the disk is not rotating. The lamp or appliance which is to be tested for energy consumption should then be turned on and the disk will begin to rotate at a speed that is directly proportional to the consumption of electricity by the appliance. It is then necessary to determine the number of seconds per revolution of the aluminum disk. While a stop watch is preferable for this, an ordinary watch may be used satisfactorily. Several observations should be taken to note the time as accurately as possible. The time per revolution in seconds is computed by dividing the number of seconds elapsed, by the number of turns during the test. To determine the wattage-consumption of the appliance undergoing test, it is necessary to divide the number which is called the "constant of the meter" by the time in seconds for one revolution of the disk. This constant depends on the make and model of your meter and on its nameplate rating, and can be obtained from the following table:

CONSTANTS OF HOUSEHOLD METERS FOR 110-VOLT, 5 AMPERE METERS

Make and Model of Meter	Meter Constant
General Electric I-10	900
General Electric I-14	1080
General Electric I-16	2160
Westinghouse C-OA-OB	1200
Duncan M.D.	1200
Duncan M, M-1, and M-2	900
Sangamo Type H.C.	1200
Sangamo Type H	750
Fort Wayne K-5	1080
Fort Wayne K, K-3, and K-4	900

Important: The above constants are for 110 volt-5 ampere meters, but should your meter nameplate say 220 volt, or 220-250 volt, or any number be-

ginning with 2, the constant must be multiplied by 2. If your meter nameplate says 10 amperes (instead of 5) multiply the constant by 2. If it says 15 amperes, multiply by 3, etc., and in general by the nameplate amperes divided by 5. (Meters rated over 10 amperes should not be used to record current consumption of appliances such as electric clocks, razor blade sharpeners, and other gadgets consuming only a very small amount of energy.) The following example is given to show how to use the nameplate information:

General Electric type I-16; volts 230-240; amperes 10. From the table we find that the constant for a General Electric I-16 meter is 2160. However, since this meter has a voltage rating beginning with 2, the constant must be multiplied by 2; and also, since the amperes rating of the meter is 10 instead of 5, the constant must be multiplied again by 2. Thus the constant for this meter is $2160 \times 2 \times 2$, which equals 8640. Assume that for the appliance tested, the time for 1 revolution of the aluminum disk equalled 82 seconds; thus the wattage consumption of the appliance equals meter constant of 8640 divided by seconds per revolution, 82, which equals 105 watts. The cost of operation is then obtained by multiplying the consumption in watts by the hours of operation and dividing by 1000 to give kilowatt hours, then multiplying by the cost per kilowatt hour. Once the constant of the meter has been determined, it is advisable to write it on a paper or board somewhere near the meter so that it will be handy for future reference.

The householder may also be interested in determining accurately the electricity consumption of an electric refrigerator, an oil burner, or any other piece of equipment which, although always connected to the line, operates for only a portion of the 24 hours in a day. The actual current consumption when running is determined in the same manner as that of any continually operating appliance, but the measurement of the actual hours that the device or appliance operates over the 24-hour interval is determined by connecting an ordinary electric clock (but of the self-starting type) in such a manner that the clock is in operation only when the device receives current. The clock should be set at 12 o'clock at the beginning of the test; the time that it shows at the end of the test will then be the actual hours of operation. In the case of most refrigerators and oil burners, the two wires from the clock may conveniently be connected (through a plug and "receptacle" [or socket] if desired) to the terminals of the electric motor of the machine. It would be advisable to have a socket or "receptacle" permanently connected to the appliance by a qualified electrician in order that the clock may be inserted into the circuit at will. A periodic check on time of running of the motor will give warning of excessive current consumption caused by slight leaks of refrigerant, deterioration (by water-soaking) of the insulating material in the walls of the cabinet, and other mechanical troubles which are common in electrical refrigerators.

Adolph Hitler on Ethics of Advertising

THE CLOSE similarity between the purpose and the ethics of advertising and those of fascist leadership is well shown by the following, a translation from Adolph Hitler's *Mein Kampf* (Munich, 1930—not the specially revised edition issued and sold in the U.S.A. by the Houghton Mifflin Company). It is worthy of note by those who think that the technique of government and the technique of business have no necessary relationship in their use of tricky and misleading propaganda methods that Hitler very clearly understood and unscrupulously recorded the identity of the aims of these *Partners in Plunder—Business and the Business-State*. This is set forth clearly in most convincing detail in the book bearing that title by J. B. Matthews and R. E. Shallcross.

This is Hitler's statement about propaganda:

The purpose of propaganda is not to entertain nor to present current novelties to snobbish fops, but to convince—especially to convince the masses. But the slow-witted masses always require a certain length of time before they are able to grasp even one idea. The simplest proposition must be repeated a thousand times before it will finally enter their consciousness.

In propagandizing, a variation in presentation must never alter the main features of the object to be attained. Each variation must always arrive at the same conclusion. Attention must, it is true, be focussed on a slogan from several different angles, but the final result of each consideration must be to throw the slogan itself into greater prominence. Only in this way can and will propaganda have a unified and concentrated effect.

This constant and unhesitating emphasis must never be abandoned. Only this general line of operation will pave the way to final success. Then, however, one will realize with amazement what tremendous and almost unbelievable results can be obtained through such persistence.

All advertising, whether in the field of business or politics, secures its effect through the persistent and undeviating unity of its application.

In this respect, the example afforded by the enemy war propaganda was excellent: it was restricted to a few main objectives; calculated to appeal solely to the masses; and practiced with untiring perseverance. Once the basically sound principles and the effective methods for carrying them out were decided upon, they were applied during the entire war without even one slight change. In the beginning this propaganda seemed almost insanely rash in its assertions; in the next stage these assertions were only disquieting; and finally they were believed.

Contributors

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Signs and Portents

THE DIRECTOR OF HOME ECONOMICS [of the National Canners Association] was asked last year to prepare two articles for *McCall's Magazine*. The first one appeared in the March, 1934, number and was entitled, "Vegetables for Any Occasion." *McCall's* gave the article a two-page spread with illustrations. The second article, entitled "Vegetables Champion the Party's Cause," appeared in the April, 1934, number of *McCall's*. Both articles were written in collaboration with Beulah Gillaspie, Food Editor of *McCall's*. . . .

The two articles and the booklet were a part of *McCall's* guest-editor plan, and they released a very attractive Magazine-size piece of publicity on this project in March, using the spread—showing cans of food and photographs of dishes prepared from canned vegetables—that was used in the March article mentioned previously. (The *Canning Trade*, Feb. 4, 1935.)

This quotation is taken from the annual report of Miss Ruth Atwater, home economist for the National Canners Association. It reveals quite clearly how little you can rely on women's magazines for sound advice on diet. After all, you couldn't expect an employee of the National Canners Association to tell you any of the faults or disadvantages of canned goods—which are many.

WAshington, D. C.—The Supreme Court of the District of Columbia on an appeal brought by the Department of Agriculture against the Morgan Packing Co. of Austin, Indiana, has ruled that canned soaked peas are a separate classification of foods under the McNary-Mapes amendment to the food and drug act and need not be labeled a substandard product, as ruled by the department in regulations on canned dried peas. (*Food Field Reporter*, February 25, 1935.)

This is another of the scores of important legal decisions on food and drug matters unfavorable to consumers. Aside from canned goods that are actually putrid, there are few foods more unpleasant to eat than canned dried peas, which are hard and often even sprouted in the can. Last year substandard canned dried peas put out by the Phillips Packing Company bore the seal of approval of Hearst's Good Housekeeping Institute. Until all canned goods bear government grades on the label, and until the courts fully protect consumers' interests in such litigations as the one in question, consumers' best protection will be to buy *fresh* peas whenever possible, or substitute some other fresh vegetable for canned peas.

ORGANIZED WOMEN to the number of six million at least have been reached and permeated by propaganda against advertising, while hearing no representative of legitimate business on the other side, Mrs. Anna Steese Richardson [associate editor of *Woman's Home Companion*] reported at a meeting at the Advertising Club of New York. . . .

"In the federated and unfederated women's clubs," Mrs. Richardson said, "in the leagues of women voters, in the American Association of University Women and in the American Home Economics Association I met the bitterest antagonism to advertising. Time and again I felt as if I were beating my bare hands against this stone wall of prejudice."

Mrs. Richardson traced this feeling partly to propaganda spread by government officers in their "entirely

just and sincere" effort to get new food and drug legislation, and partly to the work of Consumers' Research, Inc. (*Editor & Publisher*, April 6, 1935.)

CR subscribers may congratulate themselves on their own very evidently effective work in making articulate consumers' resentment at inadequate, irrelevant, false, and misleading information given in advertisements in magazines, newspapers, and over the radio.

WHILE THE PRODUCERS of packages hold many serious, interesting conferences about giving the consumer a just portion for the money, and do it with great sincerity, these same people would be somewhat surprised if they found the housewives grouping together to make a comparative analysis of values and amounts of products for the money they spend. If housewives were to do this generally throughout the country, they might destroy the packaging business. An example: If a woman's club in a church were to analyze the cost of a packaged product and find they could buy the amount that would equal 50 packages for one-fourth the price of the packaged product, they might buy the bulk merchandise and divide it up. This sort of thing, you see, would to a great extent destroy merchandising, advertising, and the production of small packages.

"Our slogan for many years has been: 'The Smaller the Package the Bigger the Profit'—and regardless of statements and intimated philanthropies, it is a fact that most producers of packages desire a profit on every package, and the smaller the package the smaller the sum required to purchase it and the less noticeable is the included profit." (J. L. Ferguson, Packomatic Machinery, Joliet, Ill., the *Glass Packer*, April, 1935.)

As we have often pointed out, consumers would learn a lot about business tactics by reading trade journals. From them, consumer groups, too, may often discover suggestions for projects. The suggested study comparing the cost of packaged goods with those sold in bulk is an excellent idea for local consumer group activity. Act on your findings.

THE STATE DEPARTMENT of agriculture today announced a drive against the sale of dyed oranges in Pennsylvania and warned that prosecutions will be brought against those selling the artificially colored fruit after May 1.

Discovery of large quantities of dyed oranges brought an investigation by the bureau of foods and chemistry recently. The general food law of the state defines any product as adulterated if it is mixed, colored or changed in color or if "by any means it is made to appear better or of greater value than it is."

Deputy Attorney General Grover C. Ladner, at a conference with J. Hansell French, secretary of agriculture, and Dr. James W. Kellogg, director of the pure foods division, ruled that dyed oranges fall in this same category. Dr. Kellogg said no harmful results follow consumption of the dyed oranges, but explained that frozen and pithy oranges may be "covered up" by artificial coloring. (*Easton Express*, March 29, 1935.)

We congratulate Pennsylvania on this action to protect consumers' interests. It is to be hoped that many states will follow this example. The next step should be to ban in every state all oranges that are not fully and unequivocally tree-ripened.



